Anja Boisen - DTU Orbit (02/11/2018)

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Nanoprobes
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Research outputs:

Preparation and Characterization of an Oral Vaccine Formulation Using Electrosprayed Chitosan Microparticles
Research output: Research - peer-review › Journal article – Annual report year: 2018

Cellular effects and delivery propensity of penetratin is influenced by conjugation to parathyroid hormone fragment 1-34 in synergy with pH
Research output: Research - peer-review › Journal article – Annual report year: 2018

Combined detection of C-reactive protein and PBMC quantification from whole blood in an integrated lab-on-a-disc microfluidic platform
Research output: Research - peer-review › Journal article – Annual report year: 2018

Combined Use of Rheology and LF-NMR for the Characterization of PVP-Alginates Gels Containing Liposomes
Research output: Research - peer-review › Journal article – Annual report year: 2018

Detecting forensic substances using commercially available SERS substrates and handheld Raman spectrometers
Research output: Research - peer-review › Journal article – Annual report year: 2018

Development of electrosprayed mucoadhesive chitosan microparticles
Research output: Research - peer-review › Journal article – Annual report year: 2018

Efficiency enhancement of InGaN amber MQWs using nanopillar structures
Research output: Research - peer-review › Journal article – Annual report year: 2018

Fabrication and loading of polycaprolactone microcontainers on water soluble release layer for oral drug delivery
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Gold Nanoparticles Sliding on Recyclable Nanohoodoos as SERS Substrates – Bridging the Gap between Low Cost and Excellent Performance
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Gold Nanoparticles Sliding on Recyclable Nanohoodoos-Engineered for Surface-Enhanced Raman Spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2018
Hacking CD/DVD/Blu-ray for Biosensing
Research output: Research - peer-review › Journal article – Annual report year: 2018

InGaN/GaN ultraviolet LED with a graphene/AZO transparent current spreading layer
Research output: Research - peer-review › Journal article – Annual report year: 2018

Injection molded lab-on-a-disc platform for screening of genetically modified E. coli using liquid-liquid extraction and surface enhanced Raman scattering
Research output: Research - peer-review › Journal article – Annual report year: 2018

Laser ablation and injection moulding as techniques for producing micro channels compatible with Small Angle X-Ray Scattering
Research output: Research - peer-review › Journal article – Annual report year: 2018

Microfabricated devices for oral drug delivery
Research output: Research - peer-review › Journal article – Annual report year: 2018

Micromotors for drug delivery in vivo: The road ahead
Research output: Research - peer-review › Journal article – Annual report year: 2018

Nanomechanical Infrared Spectroscopy with completely free-standing pyrolytic carbon string resonators for paracetamol detection
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Pyrolytic carbon for MEMS string resonators
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Real-time electrochemical detection of paracetamol interaction with intestinal tissue
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Spray dried cubosomes with ovalbumin and Quil-A as a nanoparticulate dry powder vaccine formulation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Tailoring stress in pyrolytic carbon for fabrication of nanomechanical string resonators
Research output: Research - peer-review › Journal article – Annual report year: 2018

Temperature Modulated Nanomechanical Thermal Analysis
Research output: Research - peer-review › Journal article – Annual report year: 2018

Using microcantilever sensors to measure poly(lactic-co-glycolic acid) plasticization by moisture uptake
Research output: Research - peer-review › Journal article – Annual report year: 2018

Wireless, smartphone controlled electrochemical lab-on-a-disc platform for drug dissolution studies from μcontainers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

A METHOD FOR PREPARING A SUBSTRATE BY APPLYING A SAMPLE TO BE ANALYSED
Research output: Research › Patent – Annual report year: 2017

A nanofiltration technique for analyte extraction from complex matrix and surface enhanced Raman spectroscopy based sensing
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017
An integrated lab-on-a-disc approach to detect inflammatory biomarkers from whole blood
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

A pseudo-Voigt component model for high-resolution recovery of constituent spectra in Raman spectroscopy
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Blu-Ray-based micromechanical characterization platform for biopolymer degradation assessment
Research output: Research - peer-review › Journal article – Annual report year: 2016

Challenges in the integration of silicon SERS substrates into a polypropylene injection moulded microfluidic chip
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Chemical Engineering In the "BIO" world
Research output: Research - peer-review › Journal article – Annual report year: 2017

Detection of melamine in milk using nanopillar filters and Raman spectroscopy
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Detection of p-coumaric acid from cell supernatant using surface enhanced Raman scattering
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2017

Detection of Surface-Linked Polychlorinated Biphenyls using Surface-Enhanced Raman Scattering Spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2017

Extraction And SERS Based Detection Of Bacterial Metabolites In Mixture On A Centrifugal Microfluidic Device
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Fabrication and characterization of Au dimer antennas on glass pillars with enhanced plasmonic response
Research output: Research - peer-review › Journal article – Annual report year: 2017

Fabrication of completely free-standing pyrolytic carbon string resonator
Research output: Research - peer-review › Poster – Annual report year: 2017

Fabrication of completely free-standing pyrolytic carbon string resonators
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

From concept to in vivo testing: Microcontainers for oral drug delivery
Research output: Research - peer-review › Journal article – Annual report year: 2017

Geometrically Optimized 3D Printed Mini-Devices for Oral Drug Delivery
Research output: Research - peer-review › Poster – Annual report year: 2017

Geometrically Optimized 3D Printed Mini-Devices for Oral Drug Delivery
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Hand-Held Femtogram Detection of Hazardous Picric Acid with 2 Hydrophobic Ag Nanopillar SERS Substrates and Mechanism of 3 Elasto-Capillarity
Research output: Research - peer-review › Journal article – Annual report year: 2017

High-Throughput Fabrication of Nanocone Substrates through Polymer Injection Moulding For SERS Analysis in Microfluidic Systems
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017
IR spectroscopy with pyrolytic carbon string resonator as a tool for particle detection
Research output: Research - peer-review › Poster – Annual report year: 2017

Lab-on-a-disc platform for screening of genetically modified E. coli cells via cell-free electrochemical detection of p-Coumaric acid
Research output: Research - peer-review › Journal article – Annual report year: 2017

Large-scale, Lithography-free Production of Transparent Nanostructured Surface for Dual-functional Electrochemical and SERS Sensing
Research output: Research - peer-review › Journal article – Annual report year: 2017

Loading of Drug-Polymer Matrices in Microreservoirs for Oral Drug Delivery
Research output: Research - peer-review › Journal article – Annual report year: 2016

Microcontainers as an oral delivery system for spray dried cubosomes containing ovalbumin
Research output: Research - peer-review › Journal article – Annual report year: 2017

MICROCONTAINERS FOR INTESTINAL DRUG DELIVERY: in vivo and ex vivo study
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Microcontainers for Oral Vaccine Delivery
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Nanomechanical Infrared Spectroscopy with Vibrating Filters for Pharmaceutical Analysis
Research output: Research - peer-review › Journal article – Annual report year: 2017

Nanopillar Filters for Surface-Enhanced Raman Spectroscopy
Research output: Research - peer-review › Letter – Annual report year: 2017

New Evidence for the Mechanism of Action of a Type-2 Diabetes Drug Using a Magnetic Bead-Based Automated Biosensing Platform
Research output: Research - peer-review › Journal article – Annual report year: 2017

Optimizing silver-capped silicon nanopillars to simultaneously realize macroscopic, practical-level SERS signal reproducibility and high enhancement at low costs
Research output: Research - peer-review › Journal article – Annual report year: 2017

Position and mode dependent optical detection back-action in cantilever beam resonators
Research output: Research - peer-review › Journal article – Annual report year: 2017

Powder embossing method for selective loading of polymeric microcontainers with drug formulation
Research output: Research - peer-review › Journal article – Annual report year: 2017
Quantification of a bacterial secondary metabolite by SERS combined with SLM extraction for bioprocess monitoring
Research output: Research - peer-review › Journal article – Annual report year: 2017

Quantitative Detection of Trace Level Cloxacillin in Food Samples Using Magnetic Moleularly Imprinted Polymer Extraction and Surface-Enhanced Raman Spectroscopy Nanopillars
Research output: Research - peer-review › Journal article – Annual report year: 2017

SERS detection of the biomarker hydrogen cyanide from Pseudomonas aeruginosa cultures isolated from cystic fibrosis patients
Research output: Research - peer-review › Journal article – Annual report year: 2017

SERS spectroscopy for detection of hydrogen cyanide in breath from children colonised with P. aeruginosa
Research output: Research - peer-review › Journal article – Annual report year: 2017

Single step fabrication and loading of biopolymer microcontainers for oral drug delivery
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Surface Enhanced Raman Scattering for Quantification of p-Coumaric Acid Produced by Escherichia coli
Research output: Research - peer-review › Journal article – Annual report year: 2017

Wireless Powered Lab-on-Disc Platform for Measurements on the Spin
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

Wireless, smartphone controlled potentiostat integrated with lab-on-disc platform
Research output: Research - peer-review › Paper – Annual report year: 2017

A substrate and a method of using it
Research output: Research › Patent – Annual report year: 2016

A Centrifugal Microfluidic Platform Using SLM Extraction: for combined sample clean-up and enrichment of trace analytes
Research output: Research - peer-review › Poster – Annual report year: 2016

A comprehensive investigation of copper binding properties of metformin using on-disc magnetic microbead agglomeration with real-time analysis
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Analyzing Engineered Nanoparticles using Photothermal Infrared Spectroscopy

Black silicon laser-doped selective emitter solar cell with 18.1% efficiency
Research output: Research - peer-review › Journal article – Annual report year: 2015

Blu-ray based optomagnetic aptasensor for detection of small molecules
Research output: Research - peer-review › Journal article – Annual report year: 2016

Click chemistry based biomolecular conjugation monitoring using surface-enhanced Raman spectroscopy mapping
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Detection methods for centrifugal microfluidic platforms
Research output: Research - peer-review › Journal article – Annual report year: 2016
Detection of nerve gases using surface-enhanced Raman scattering substrates with high droplet adhesion
Research output: Research › peer-review › Journal article – Annual report year: 2016

Electrospraying Chitosan Particles for Oral Vaccine Delivery
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2016

Electrospraying particles for loading into microcontainers for drug delivery
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2016

Engineering Plasmonic Nanopillar Arrays for Surface-enhanced Raman Spectroscopy

Experimentation and numerical modeling of cyclic voltammetry for electrochemical micro-sized sensors under the influence of electrolyte flow
Research output: Research › peer-review › Journal article – Annual report year: 2016

Fabrication and characterization of Au dimer antennas on glass pillars with enhanced plasmonic response
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2017

Fabrication and characterization of pyrolytic carbon string resonators
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2016

Geometric Optimization of Microcontainers for Oral Drug Delivery
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2017

Gold Nanoparticle Aggregations on Recyclable Hierarchical Nanotrays for Surface-enhanced Raman Spectroscopy with Macroscale Uniformity
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2017

Hollow MEMS: An Integrated Sensor for Combined Density, Viscosity, Buoyant Mass and IR Absorption Spectrometry

Lab-on-a-disc agglutination assay for protein detection by optomagnetic readout and optical imaging using nano- and micro-sized magnetic beads
Research output: Research › peer-review › Journal article – Annual report year: 2016

Lab-on-a-disc device for screening of genetically engineered E.coli cells
Research output: Research › peer-review › Poster – Annual report year: 2017

Lithography-Free Fabrication of Silica Nanocylinders with Suspended Gold Nanorings for LSPR-Based Sensing
Research output: Research › peer-review › Journal article – Annual report year: 2016

Macroscale SERS Uniformity and Reproducibility Using Densely Clustered Nanopillars
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2017

Microcontainers - an oral drug delivery system for poorly soluble drugs
Research output: Research › peer-review › Poster – Annual report year: 2016

Microcontainers - an oral drug delivery system for poorly soluble drugs
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2016
Microcontainers as an oral drug delivery system
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Microcontainers as an Oral Drug Delivery System
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Microcontainers as effective drug delivery vehicles: advances in the drug loading
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Microcontainers for Intestinal Drug Delivery
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Micromechanical Pyrolytic Carbon String Resonators
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Nanomechanical IR spectroscopy for fast analysis of liquid-dispersed engineered nanomaterials
Research output: Research - peer-review › Journal article – Annual report year: 2016

Nanomechanical Pyrolytic Carbon Resonators: Novel Fabrication Method and Characterization of Mechanical Properties
Research output: Research - peer-review › Journal article – Annual report year: 2016

Nanostructuring of Solar Cell Surfaces

Nonlinear optomechanical measurement of mechanical motion
Research output: Research - peer-review › Journal article – Annual report year: 2016

Orientation of Pterin-6-Carboxylic Acid on Gold Capped Silicon Nanopillars Platforms: Surface Enhanced Raman Spectroscopy and Density Functional Theory Studies
Research output: Research - peer-review › Journal article – Annual report year: 2016

Perforated SiN membrane resonators for nanomechanical IR spectroscopy poster
Research output: Research - peer-review › Poster – Annual report year: 2016

Plasmonic nanopillar structures for surface-enhanced raman scattering applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Polymeric microcontainers improve oral bioavailability of furosemide
Research output: Research - peer-review › Journal article – Annual report year: 2016

Spray Drying of Cubosomes for Oral Vaccine Delivery
Research output: Research - peer-review › Poster – Annual report year: 2016

Supercritical impregnation of polymer matrices spatially confined in microcontainers for oral drug delivery: Effect of temperature, pressure and time
Research output: Research - peer-review › Journal article – Annual report year: 2015

Surface-enhanced Raman spectroscopic study of DNA and 6-mercapto-1-hexanol interactions using large area mapping
Research output: Research - peer-review › Journal article – Annual report year: 2016
Surface Enhanced Raman Spectroscopy detection of p-coumaric acid from cell supernatant using gold-capped silicon nanopillar substrates
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Synthesis and characterization of UV photocrosslinkable hydrogels with poly(N-vinyl-2-pyrrolidone): Determination of the network mesh size distribution
Research output: Research - peer-review › Journal article – Annual report year: 2016

Triple co-culture cell model as an in vitro model for oral particulate vaccine systems
Research output: Research - peer-review › Poster – Annual report year: 2016

Wafer-Scale Nanopillars Derived from Block Copolymer Lithography for Surface-Enhanced Raman Spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2016

A method for the chemical modification of polychlorinated biphenyls for improved affinity towards noble metal surfaces.
Research output: Research › Patent – Annual report year: 2015

Adsorption and Vibrational Study of Folic Acid on Gold Nanopillar Structures Using Surface-enhanced Raman Scattering Spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2015

A Lab-on-a-Disc Platform for Trapping of Cell Population, Monitoring of Cell growth and Evaluation of Redox Metabolism
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

A Lab-on-a-disc platform for trapping of cells, monitoring of cell behaviour and evaluation of redox metabolism
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Angle resolved characterization of nanostructured and conventionally textured silicon solar cells
Research output: Research - peer-review › Journal article – Annual report year: 2015

Centrifugal Microfluidic Platform Using Supported Liquid Membrane Extraction for Combined Sample Clean-Up and Enrichment of Trace Analytes
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Degradation studies of spray coated polymer films using cantilever sensors
Research output: Research - peer-review › Poster – Annual report year: 2015

Detection of bacterial metabolites through dynamic acquisition from surface enhanced raman spectroscopy substrates integrated in a centrifugal microfluidic platform
Development of a SERS aptasensor for detection of medical residues
Research output: Research › Ph.D. thesis – Annual report year: 2015

Exploring Plasmonic Resonances of Silver Capped Silicon Nanopillars
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Fabrication and loading of microcontainers for oral drug delivery
Research output: Research › Ph.D. thesis – Annual report year: 2015

Fabrication and loading of oral drug delivery microcontainers using hot punching
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Fabrication of Ni stamp with high aspect ratio, two-leveled, cylindrical microstructures using dry etching and electroplating: Paper
Research output: Research - peer-review › Journal article – Annual report year: 2015

Hot embossing and mechanical punching of biodegradable microcontainers for oral drug delivery
Research output: Research - peer-review › Journal article – Annual report year: 2014

Hot punching of high-aspect-ratio 3D polymeric microstructures for drug delivery
Research output: Research - peer-review › Journal article – Annual report year: 2015

Hydrodynamics studies of cyclic voltammetry for electrochemical micro biosensors
Research output: Research - peer-review › Journal article – Annual report year: 2015

Integrating Electrochemical Detection with Centrifugal Microfluidics for Real-Time and Fully Automated Sample Testing
Research output: Research - peer-review › Journal article – Annual report year: 2015

Integration of agglutination assay for protein detection in microfluidic disc using Blu-ray optical pickup unit and optical fluid scanning
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Maskless Nanostructure Definition of Submicron Rear Contact Areas for Advanced Solar Cell Designs
Research output: Research - peer-review › Poster – Annual report year: 2015

Mathematical model for biomolecular quantification using large-area surface-enhanced Raman spectroscopy mapping
Research output: Research - peer-review › Journal article – Annual report year: 2015

Mathematical model for biomolecular quantification using surface-enhanced Raman spectroscopy based signal intensity distributions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Method for manufacturing carrier containing e.g. proteins for human during oral drug delivery operation for food and drug administration application in pharmaceutical industry, involves providing active ingredient to core layer
Research output: Research › Patent – Annual report year: 2015

Microcantilever sensors for fast analysis of enzymatic degradation of poly (D, L-lactide)
Research output: Research - peer-review › Journal article – Annual report year: 2015
Microcontainers - an oral drug delivery system for poorly soluble drugs
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Microcontainers as an oral drug delivery system
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Microcontainers improve oral bioavailability of furosemide
Research output: Research - peer-review › Poster – Annual report year: 2015

Micromechanical Fast Quasi-Static Detection of α and β Relaxations with Nanograms of Polymer
Research output: Research - peer-review › Journal article – Annual report year: 2015

Parallelized system for biopolymer degradation studies through automated microresonator measurement in liquid flow
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

pH-triggered drug release from biodegradable microwells for oral drug delivery
Research output: Research - peer-review › Journal article – Annual report year: 2015

Plasmon resonances of Ag capped Si nanopillars fabricated using mask-less lithography.
Research output: Research - peer-review › Journal article – Annual report year: 2015

Polymer micromcontainers improve oral bioavailability of a poorly soluble drug
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Quantification of NS1 dengue biomarker in serum via optomagnetic nanocluster detection
Research output: Research - peer-review › Journal article – Annual report year: 2015

Quantification of rolling circle amplified DNA using magnetic nanobeads and a Blu-ray optical pick-up unit
Research output: Research - peer-review › Journal article – Annual report year: 2014

Reduction of thermal budget in the solar industry
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Scalable DNA-Based Magnetic Nanoparticle Agglutination Assay for Bacterial Detection in Patient Samples
Research output: Research - peer-review › Journal article – Annual report year: 2015

SERS sensors for DVD platform
Research output: Research › Ph.D. thesis – Annual report year: 2015

Silver-capped silicon nanopillar platforms for adsorption studies of folic acid using surface enhanced Raman spectroscopy and density functional theory
Research output: Research - peer-review › Journal article – Annual report year: 2015

Silver Capped Silicon Nanopillars as Surface Enhanced Raman Spectroscopy Substrates
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Simple electrodynamic transduction scheme for micromechanical resonators
Research output: Research - peer-review › Poster – Annual report year: 2015
Simulation and Measurement of Angle Resolved Reflectance from Black Si Surfaces
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Statistical analysis of large areas of Raman mapped DNA functionalized gold coated silicon nanopillar SERS substrates
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2015

The copper binding properties of metformin - QCM-D, XPS and nanobead agglomeration
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Towards quantitative SERS detection of hydrogen cyanide at ppb level for human breath analysis
Research output: Research - peer-review › Journal article – Annual report year: 2015

Wafer-Scale Leaning Silver Nanopillars for Molecular Detection at Ultra-Low Concentrations
Research output: Research - peer-review › Journal article – Annual report year: 2015

Biosensor based on the measurements of clustering dynamics of magnetic particles using a double pass setup
Research output: Research › Patent – Annual report year: 2015

A Centrifugal Microfluidic Platform for Biomarker Detection in Blood using BluRay Technology
Research output: Research - peer-review › Poster – Annual report year: 2014

A magnetic nanoparticle-clustering biosensor for blu-ray based optical detection of small-molecules
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Can engineering solutions really provide a sustainable future?
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Characterization of Electromechanical Behavior of an Electrochemical Cantilever System
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Characterization of the time-evolving bending profile of micro-cantilevers
Research output: Research - peer-review › Poster – Annual report year: 2014

Conducting 3D-carbon scaffolds induce spontaneous differentiation of human neural stem cells and measure neurotransmitter release in real-time
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Development of an electrochemical cantilever platform
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Electrochemistry in a centrifugal microfluidic system: Towards a novel point-of-care technology platform
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Fabrication and Process Optimization of Wafer-scale Silicon Nanopillar SERS Substates
Research output: Research - peer-review › Poster – Annual report year: 2014
Fabrication of drug-laden poly(vinylpyrrolidone)(PVP) microgels by UV-photolithography and supercritical impregnation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Hollow micro string based calorimeter device
Research output: Research › Patent – Annual report year: 2014

Imaging based agglutination measurement of magnetic micro-particles on a Lab-on-a-Disc platform
Research output: Research - peer-review › Poster – Annual report year: 2014

Imaging based agglutination measurement of magnetic micro-particles on a lab-on-a-disk platform
Research output: Research - peer-review › Poster – Annual report year: 2014

Improvement of Infrared Detectors for Tissue Oximetry using Black Silicon Nanostructures
Research output: Research - peer-review › Conference article – Annual report year: 2014

Improving spectral resolution of SERS using moving Ag nanopillar substrate
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Improving spectral resolution of SERS using moving AG nanopillar substrate
Research output: Research - peer-review › Poster – Annual report year: 2014

Improving the robustness of Surface Enhanced Raman Spectroscopy based sensors by Bayesian Non-negative Matrix Factorization
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

In-situ monitoring of potential enhanced DNA related processes using electrochemical quartz crystal microbalance with dissipation (EQCM-D)
Research output: Research - peer-review › Journal article – Annual report year: 2014

Integrated cantilever-based flow sensors with tunable sensitivity for in-line monitoring of flow fluctuations in microfluidic systems
Research output: Research - peer-review › Journal article – Annual report year: 2014

In vitro characterization of microcontainers as an oral drug delivery system.
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2014

In vitro characterization of microcontainers as an oral drug delivery system.
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Lab-on-Blu-ray: Low-cost analyte detection on a disk
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Lab-on-Blu-ray: Low-cost analyte detection on a disk
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Lab-on-Blu-ray: Low-cost analyte detection on a disk
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Loading of microcontainers for oral drug delivery
Research output: Research › Ph.D. thesis – Annual report year: 2014
Low-Power Photothermal Probing of Single Plasmonic Nanostructures with Nanomechanical String Resonators
Research output: Research › peer-review › Journal article – Annual report year: 2014

Micro and nano structures for biosensing and oral drug delivery
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Microcontainers, an innovative oral drug delivery system for poorly soluble drugs
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Microcontainers as an oral drug delivery system.
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2014

Microcontainers as an oral drug delivery system.
Research output: Research › peer-review › Conference abstract for conference – Annual report year: 2014

Microcontainers as oral drug delivery systems for small molecules and proteins
Research output: Research › peer-review › Poster – Annual report year: 2014

Microcontainers for Unidirectional Release in the Upper Intestine
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Microfabricated containers for oral drug delivery
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Microfabricated containers for pH-triggered drug release in the upper intestine
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Micromechanical photothermal analyser of microfluidic samples.
Research output: Research › Patent – Annual report year: 2015

Micromechanical resonators as a tool for polymer characterization
Research output: Research › Ph.D. thesis – Annual report year: 2014

Micromechanical String Resonators: Analytical Tool for Thermal Characterization of Polymers
Research output: Research › peer-review › Journal article – Annual report year: 2014

Molecular diagnostics based on magnetic nanobead clustering dynamics monitored using a Blu-ray optomagnetic readout system
Research output: Research › peer-review › Poster – Annual report year: 2014

Nanomechanical identification of liquid reagents in a microfluidic channel
Research output: Research › peer-review › Journal article – Annual report year: 2014

Nanomechanical IR Spectroscopy for the fast analysis of picogram samples of engineered nanomaterials
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Optical, Nanomechanical and Electrochemical Sensing on a DVD Disc
Research output: Research › peer-review › Conference abstract in journal – Annual report year: 2014

Optimizing Signal-to-Noise Ratio of SERS Ag Capped Si Nanopillars
Research output: Research › peer-review › Poster – Annual report year: 2014
Photothermal probing of plasmonic hotspots with nanomechanical resonator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Photothermal resonance
Research output: Research › Patent – Annual report year: 2014

Physical characterization of photocrosslinked poly(vinyl pyrrolidone) (PVP) hydrogels for drug delivery
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Polymer drug matrix loading in micro-containers using hot punching
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Polymer-filled microcontainers for oral delivery loaded using supercritical impregnation
Research output: Research - peer-review › Journal article – Annual report year: 2013

Quadratic measurement and conditional state preparation in an optomechanical system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Removal of residues from reactive ion etched silicon surfaces characterized with XPS and Raman spectroscopy
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Removal of Residues from Reactive Ion Etched Silicon Surfaces Characterized with XPS and SERS
Research output: Research - peer-review › Poster – Annual report year: 2014

Sensitive Blu-ray detection of clustered rolling circle products for molecular diagnostics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Single-layer graphene on silicon nitride micromembrane resonators
Research output: Research - peer-review › Journal article – Annual report year: 2014

Synthesis and characterization of covalent diphenylalanine nanotube-folic acid conjugates
Research output: Research - peer-review › Journal article – Annual report year: 2014

Tailoring the structure and the properties of pyrolysed carbon electrodes
Research output: Research - peer-review › Poster – Annual report year: 2014

A microfluidic surface enhanced Raman spectroscopic biosensor using aptamer functionalized nanopillars
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

A slow cooling rate of indomethacin melt spatially confined in microcontainers increases the physical stability of the amorphous drug without influencing its biorelevant dissolution behaviour
Research output: Research - peer-review › Journal article – Annual report year: 2013

Biodegradable microcontainers as an oral drug delivery system for poorly soluble drugs.
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Black silicon maskless templates for carbon nanotube forests
Research output: Research - peer-review › Journal article – Annual report year: 2013
Centrifugal microfluidic platform with real-time electrochemical detection
Research output: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Compact MEMS/NEMS characterization platform using a DVD optical pick-up unit with optical imaging function
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Computational and experimental studies of the interaction between single-walled carbon nanotubes and folic acid
Research output: Research - peer-review › Journal article – Annual report year: 2013

Conducting pyrolysed carbon scaffold for tissue engineering
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Detection of Airborne Nanoparticles with Mechanical Systems
Research output: Research - peer-review › Journal article – Annual report year: 2013

Development of Electrochemical Cantilever Sensors for DNA Applications
Research output: Research - peer-review › Journal article – Annual report year: 2013

DNA hybridization sensing for cytogenetic analysis
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Drug-polymer filled micro-containers for oral delivery loaded using supercritical CO₂ aided-impregnation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Enhanced Light–Matter Interactions in Graphene-Covered Gold Nanovoid Arrays
Research output: Research - peer-review › Journal article – Annual report year: 2013

Ferromagnetic shadow mask for spray coating of polymer patterns
Research output: Research - peer-review › Journal article – Annual report year: 2013

Graphene-on-dielectric micromembrane for optoelectromechanical hybrid devices
Research output: Research - peer-review › Journal article – Annual report year: 2013

High-performance spinning device for DVD-based micromechanical signal transduction
Research output: Research - peer-review › Journal article – Annual report year: 2013

Hot punching of individual biopolymer microcontainers for oral drug delivery
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Imaging interferometry to measure surface rotation field
Research output: Research - peer-review › Journal article – Annual report year: 2013

Inkjet printing as a technique for filling of micro-wells with biocompatible polymers
Research output: Research - peer-review › Journal article – Annual report year: 2013

Loading of micro-containers for oral delivery with supercritical CO₂ aided impregnation
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Micro fabrication of biodegradable polymer drug delivery devices
Research output: Research › Ph.D. thesis – Annual report year: 2013
Micromechanical PDGF recognition via lab-on-a-disc aptasensor arrays
Research output: Research - peer-review › Journal article – Annual report year: 2013

Micro string resonators as temperature sensors
Research output: Research - peer-review › Conference article – Annual report year: 2013

Nanomechanical recognition of prognostic biomarker suPAR with DVD-ROM optical technology
Research output: Research - peer-review › Journal article – Annual report year: 2013

Non-covalent conjugates of single-walled carbon nanotubes and folic acid for interaction with cells overexpressing folate receptors
Research output: Research - peer-review › Journal article – Annual report year: 2014

Online measurement of mass density and viscosity of pL fluid samples with suspended microchannel resonator
Research output: Research - peer-review › Journal article – Annual report year: 2013

Photothermal analysis of individual nanoparticulate samples using micromechanical resonators
Research output: Research - peer-review › Journal article – Annual report year: 2013

Photothermal Infrared Spectroscopy of Airborne Samples with Mechanical String Resonators
Research output: Research - peer-review › Journal article – Annual report year: 2013

Plasma etching on large-area mono-, multi- and quasi-mono crystalline silicon
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Plasma etching on large-area mono-, multi- and quasi-mono crystalline silicon
Research output: Research › Poster – Annual report year: 2013

Plasma texturing on large-area industrial grade CZ silicon solar cells
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Plasma texturing on large-area industrial grade CZ silicon solar cells
Research output: Research › Poster – Annual report year: 2013

Process optimization of ultrasonic spray coating of polymer films
Research output: Research - peer-review › Journal article – Annual report year: 2013

Pyrolysed carbon resonators: Fabrication and characterization
Research output: Research - peer-review › Poster – Annual report year: 2013

Real-time single airborne nanoparticle detection with nanomechanical resonant filter-fiber
Research output: Research - peer-review › Journal article – Annual report year: 2013

Resonant fiber based aerosol particle sensor and method
Research output: Research › Patent – Annual report year: 2013

Resonant photothermal IR spectroscopy of picogram samples with microstring resonator
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Sensitive determination of the Young's modulus of thin films by polymeric microcantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2013
Spray coating of microcontainers with eudragit using ferromagnetic shadow masks for controlled oral release of poorly water soluble drugs.
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

Surface-Enhanced Raman Spectroscopy Based Quantitative Bioassay on Aptamer-Functionalized Nanopillars Using Large-Area Raman Mapping
Research output: Research › peer-review › Journal article – Annual report year: 2013

Temperature Stable Mass Sensors
Research output: Research › Ph.D. thesis – Annual report year: 2013

Towards airborne nanoparticle mass spectrometry with nanomechanical string resonators
Research output: Research › Article in proceedings – Annual report year: 2013

Towards Picomolar Detection with DVD-ROM Optical Technology
Research output: Research › Conference abstract in proceedings – Annual report year: 2013

Using Experience From Explosives Detection in Development of Biosensors Based On Nanomechanical Responses
Research output: Research › Conference abstract in journal – Annual report year: 2013

A DVD-ROM based high-throughput cantilever sensing platform
Research output: Research › Ph.D. thesis – Annual report year: 2012

An Astigmatic Detection System for Polymeric Cantilever-based Sensors
Research output: Research › Journal article – Annual report year: 2012

Centrifugally driven microfluidic disc for detection of chromosomal translocations
Research output: Research › Journal article – Annual report year: 2012

Dense high aspect ratio pillar arrays for carbon MEMS electrodes
Research output: Research › Conference abstract in proceedings – Annual report year: 2013

Electrochemical evaluation of dopamine detection on pyrolysed carbon and gold electrodes
Research output: Research › Poster – Annual report year: 2013

Electrochemical evaluation of pyrolysed high-aspect ratio 3D electrodes for biofuel cell applications
Research output: Research › Poster – Annual report year: 2013

Fabrication of high-aspect ratio SU-8 micropillar arrays
Research output: Research › Journal article – Annual report year: 2012

High frequency bulk resonators for bio/chemical diagnostics and monitoring applications
Research output: Research › Ph.D. thesis – Annual report year: 2012

Inkjet printing as a novel drug loading technique of micro-containers
Research output: Research › Conference abstract in proceedings – Annual report year: 2012

Investigation of cleaning and regeneration methods for reliable construction of DNA cantilever biosensors
Research output: Research › Paper – Annual report year: 2012
Investigations by Raman Microscopy if Spatial Confinement of Amorphous Indomethacin Can Lead to Increased Stability
Research output: Research - peer-review › Paper – Annual report year: 2012

Microfluidic System With Capillary Burst Valves For Detection Of Chromosomal Translocations
Research output: Research - peer-review › Poster – Annual report year: 2012

Micromechanical aptasensor-based protein detection using a compact-disc format microfluidics system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Micro-Mechanical Temperature Sensors
Research output: Research › Ph.D. thesis – Annual report year: 2012

Multi-colorimetric sensor array for detection of illegal materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Research output: Research - peer-review › Journal article – Annual report year: 2012

Physical stability and dissolution of spatially confined amorphous indomethacin: The effect of different heating and cooling rates
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Process Optimization for Spray Coating of Poly (vinyl pyrrolidone)
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Spatial confinement can lead to increased stability of amorphous indomethacin
Research output: Research - peer-review › Journal article – Annual report year: 2012

Stability of amorphous drug formulations in microcontainers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Statistical analysis of DNT detection using chemically functionalized microcantilever arrays
Research output: Research - peer-review › Journal article – Annual report year: 2012

Surface chemical functionalisation of epoxy photoresist-based microcantilevers with organic-coated TiO2 nanocrystals
Research output: Research - peer-review › Journal article – Annual report year: 2012

Test system and method
Research output: Research › Patent – Annual report year: 2012

Various heating and cooling conditions influence the release of amorphous indomethacin from microcontainers
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Micro-calorimetric sensors for explosives detection
Research output: Research › Ph.D. thesis – Annual report year: 2011

Development of an Electrochemical-Cantilever Hybrid Platform
Research output: Research › Ph.D. thesis – Annual report year: 2011

3D microstructuring of biodegradable polymers
Research output: Research - peer-review › Conference article – Annual report year: 2011
An electrochemical-cantilever platform for hybrid sensing applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Biodegradable micromechanical sensors
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Cantilever-based micro-particle filter with simultaneous single particle detection
Research output: Research - peer-review › Journal article – Annual report year: 2011

Cantilever-Based Microwave Biosensors: Analysis, Designs and Optimizations
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Cantilever-like micromechanical sensors
Research output: Research - peer-review › Journal article – Annual report year: 2011

Damping mechanisms in high-Q micro and nanomechanical string resonators
Research output: Research - peer-review › Journal article – Annual report year: 2011

Data representation and feature selection for colorimetric sensor arrays used as explosives detectors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Deposition of biopolymer films on micromechanical sensors
Research output: Research - peer-review › Conference article – Annual report year: 2011

Development and characterization of electrochemical cantilever sensor for bio/chemical sensing applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Development of a microfabricated electrochemical-cantilever hybrid platform
Research output: Research - peer-review › Journal article – Annual report year: 2011

Development of nanoporous gold electrodes for electrochemical applications
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Development of nanostructured protective "sight glasses" for IR gas sensors
Research output: Research - peer-review › Conference article – Annual report year: 2011

Differential thermal analysis microsystem for explosive detection
Research output: Research › Conference article – Annual report year: 2011

FABRICATION AND CHARACTERIZATION OF MICRO RESONANT CANTILEVERS WITH INTEGRATED FLUIDIC CHANNELS
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Fabrication and characterization of SRN/SU-8 bimorph cantilevers for temperature sensing
Research output: Research - peer-review › Conference article – Annual report year: 2011

Fabrication of a cantilever-based microfluidic flow meter with nL min(-1) resolution
Research output: Research - peer-review › Journal article – Annual report year: 2011
Fabrication of biopolymer cantilevers using nanoimprint lithography
Research output: Research - peer-review › Journal article – Annual report year: 2011

Fabrication of high aspect ratio SU-8 micropillar arrays
Research output: Research - peer-review › Poster – Annual report year: 2011

Fabrication of resonant micro cantilevers with integrated transparent fluidic channel
Research output: Research - peer-review › Journal article – Annual report year: 2011

High-throughput automated system for statistical biosensing employing microcantilevers arrays
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

High-throughput label-free platform for statistical bio-molecular sensing
Research output: Research - peer-review › Journal article – Annual report year: 2011

Hollow cantilever-based density sensors with embedded microfluidic channel
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2011

Investigation of Electrochemical and Mechanical Behaviour of Electrochemical Cantilever Sensor by Electrochemical methods
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Large area fabrication of leaning silicon nanopillars for surface enhanced raman spectroscopy
Research output: Research - peer-review › Journal article – Annual report year: 2011

Micromechanical sensors for the measurement of biopolymer degradation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Microwave absorption properties of gold nanoparticle doped polymers
Research output: Research - peer-review › Journal article – Annual report year: 2011

Multi-colorimetric sensor array for detection of explosives in gas and liquid phase
Research output: Research - peer-review › Conference article – Annual report year: 2011

Multisensor array for detection of analytes or mixtures thereof in gas or liquid phase
Research output: Research › Patent – Annual report year: 2011

Quality factor improvement of silicon nitride micro string resonators
Research output: Research - peer-review › Conference article – Annual report year: 2011

Rotating microcantilever array platform for high-throughput statistical biosensing
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

SERS substrate and a method of providing a SERS substrate
Research output: Research › Patent – Annual report year: 2012

Spatial confinement of amorphous indomethacin increases stability
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2011

Surface enhanced Raman scattering substrates consumables for Raman spectroscopy
Research output: Research › Patent – Annual report year: 2011
The Xsense project: The application of an intelligent sensor array for high sensitivity handheld explosives detectors
Research output: Research › peer-review › Article in proceedings – Annual report year: 2011

Transparent hollow micro cantilevers based mass sensor
Research output: Research › peer-review › Conference abstract in proceedings – Annual report year: 2011

Ultrasensitive string-based temperature sensors
Research output: Research › peer-review › Journal article – Annual report year: 2011

Xsense: a miniaturised multi-sensor platform for explosives detection
Research output: Research › peer-review › Conference article – Annual report year: 2011

Microfluidic sensors based on perforated cantilevers
Research output: Research › Ph.D. thesis – Annual report year: 2010

Development of the colorimetric sensor array for detection of explosives and volatile organic compounds in air
Research output: Research › Conference article – Annual report year: 2010

Diffusion of water into SU-8 microcantilevers
Research output: Research › peer-review › Journal article – Annual report year: 2010

Double layer resist process scheme for metal lift-off with application in inductive heating of microstructures
Research output: Research › peer-review › Journal article – Annual report year: 2010

Drift study of SU8 cantilevers in liquid and gaseous environments
Research output: Research › peer-review › Journal article – Annual report year: 2010

Fabrication of polymer microcantilevers by nanoimprint lithography
Research output: Research › Ph.D. thesis – Annual report year: 2011

Fabrication of thin SU-8 cantilevers: Initial bending, release and time stability
Research output: Research › peer-review › Journal article – Annual report year: 2010

Micro-calorimetric sensor for vapor phase explosive detection with optimized heat profile
Research output: Research › peer-review › Journal article – Annual report year: 2010

Modeling the Kelvin polarization force actuation of Micro- and Nanomechanical systems
Research output: Research › peer-review › Journal article – Annual report year: 2010

Nanostructured surface enhanced Raman scattering substrates for explosives detection
Research output: Research › peer-review › Article in proceedings – Annual report year: 2010

Novel SU-8 based vacuum wafer-level packaging for MEMS devices
Research output: Research › peer-review › Journal article – Annual report year: 2010

Polymer-coated vertical-cavity surface-emitting laser diode vapor sensor
Research output: Research › peer-review › Conference article – Annual report year: 2010

Position and mass determination of multiple particles using cantilever based mass sensors
Research output: Research › peer-review › Journal article – Annual report year: 2010
Real-Time Particle Mass Spectrometry Based on Resonant Micro Strings
Research output: Research - peer-review › Journal article – Annual report year: 2010

Self-aligned cantilever positioning for on-substrate measurements using DVD pickup head
Research output: Research - peer-review › Journal article – Annual report year: 2010

Surface Functionalization of Epoxy-Resist-Based Microcantilevers with Iron Oxide Nanocrystals
Research output: Research - peer-review › Journal article – Annual report year: 2010

The influence of refractive index change and initial bending of cantilevers on the optical lever readout method
Research output: Research - peer-review › Journal article – Annual report year: 2010

Thermoplastic microcantilevers fabricated by nanoimprint lithography
Research output: Research - peer-review › Journal article – Annual report year: 2010

Two-Step Fabrication of Metal-Coated Silicon Nanopillars with Large Raman Enhancement
Research output: Research - peer-review › Book chapter – Annual report year: 2010

Wafer scale coating of polymer cantilever fabricated by nanoimprint lithography
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Xsense: using nanotechnology to combine detection methods for high sensitivity handheld explosives detectors
Research output: Research - peer-review › Conference article – Annual report year: 2010

Acetone vapor sensing using a vertical cavity surface emitting laser diode coated with polystyrene
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2009

Autonomous valve for detection of biopolymer degradation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Cantilever sensors: Nanomechanical tools for diagnostics
Research output: Research - peer-review › Journal article – Annual report year: 2009

Compact Electrically tunable Waveplate Based on Liquid Crystal Photonic Bandgap Fibers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Design & fabrication of cantilever array biosensors
Research output: Research - peer-review › Journal article – Annual report year: 2009

Gold Cleaning Methods for Electrochemical Detection Applications
Research output: Research - peer-review › Conference article – Annual report year: 2009

Longitudinal bulk a coustic mass sensor
Research output: Research › Article in proceedings – Annual report year: 2009

Longitudinal bulk acoustic mass sensor
Research output: Research - peer-review › Journal article – Annual report year: 2009

Mass spec goes nanomechanical
Research output: Research - peer-review › Journal article – Annual report year: 2009
Micro-calorimetric sensor for vapour phase explosive detection with optimized heat profile
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Micro-differential thermal analysis detection of adsorbed explosive molecules using microfabricated bridges
Research output: Research - peer-review › Journal article – Annual report year: 2009

Micro-particle filter made in SU-8 for biomedical applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Self-mixing interferometry in VCSELs for nanomechanical cantilever sensing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Self-mixing interferometry in vertical-cavity surface-emitting lasers for nanomechanical cantilever sensing
Research output: Research - peer-review › Journal article – Annual report year: 2009

Towards easily reproducible nano-structured SERS substrates
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Fabrication of an autonomous surface stress sensor with the polymer SU-8
Research output: Research › Ph.D. thesis – Annual report year: 2008

Piezoresistive polymer composites for cantilever readout
Research output: Research › Ph.D. thesis – Annual report year: 2008

Advances in the fabrication of cantilever-based sensors with the polymer SU-8
Research output: Research - peer-review › Poster – Annual report year: 2008

A novel fabrication technique for free-hanging homogeneous polymeric cantilever waveguides
Research output: Research - peer-review › Poster – Annual report year: 2008

Characterization of NTA-Thiol Monolayers on Au Electrodes for Application In a Cantilever-based heavy Metal Ion Sensor
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Characterization of NTA-Thiol Monolayers on Au Electrodes for Application in a Cantilever-based Hybrid Sensor for Heavy Metal Ion Detection
Research output: Research - peer-review › Poster – Annual report year: 2008

Characterization of NTA-Thiol Monolayers on Au Electrodes for Application In a Hybrid Sensor for Heavy Metal Ion Detection
Research output: Research - peer-review › Conference article – Annual report year: 2008

Covalent surface functionalization og a micro mechanical cantilever by organic capped TiO2 and gamma.Fe2O3 Nanocrystals
Research output: Research - peer-review › Poster – Annual report year: 2008

Detection of adsorbed explosive molecules using thermal response of suspended microfabricated bridges
Research output: Research - peer-review › Journal article – Annual report year: 2008

Epoxy based photoresist/carbon nanoparticle composites
Research output: Research - peer-review › Journal article – Annual report year: 2008
Fabrication of Cantilevers by NIL
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Functionalization of SU-8 Photoresist Surfaces with IgG Proteins
Research output: Research - peer-review › Journal article – Annual report year: 2008

Gold Cleaning Methods for Electrochemical Detection Applications
Research output: Research - peer-review › Poster – Annual report year: 2008

Gold Cleaning Methods for Electrochemical Detection Applications
Research output: Research - peer-review › Book chapter – Annual report year: 2008

Improvement of the Release Yield of SU-8 Micro-Particle Filters by an additional ASE etch Step
Research output: Research - peer-review › Poster – Annual report year: 2008

International Conference on Micro- and Nano-Engineering (MNE) held in Copenhagen, Denmark September 23-26, 2007 - Preface
Research output: Research - peer-review › Journal article – Annual report year: 2008

Intrinsically conductive polymer thin film piezoresistors
Research output: Research - peer-review › Book chapter – Annual report year: 2008

Laser self-mixing interferometry in VCSELs - an ultra-compact and massproducible deflection detection system for nanomechanical polymer cantilever sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Nanomekanik - en verden i bevægelse
Research output: Research - peer-review › Book chapter – Annual report year: 2008

Optimized plasma-deposited fluorocarbon coating for dry release and passivation of thin SU-8 cantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Photochemical modification and patterning of SU-8 using Anthraquinone photolinkers
Research output: Research - peer-review › Journal article – Annual report year: 2008

Processing of thin SU-8 films
Research output: Research - peer-review › Journal article – Annual report year: 2008

SU-8 cantilevers for bio/chemical sensing; Fabrication, characterisation and development of novel read-out methods
Research output: Research - peer-review › Journal article – Annual report year: 2008

The Influence of an ASE Etch Process on SU-8 Layer and on the Release Yield of SU-8 Microarticle Filters
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

The Influence of an ASE Etch Process on SU-8 Layer and on the Release Yield of SU-8 Micro-cantilevers
Research output: Research - peer-review › Poster – Annual report year: 2008

Ultra Soft cantilever based Sensors using Silicon based materials
Research output: Research - peer-review › Poster – Annual report year: 2008
Ultra Soft cantilever based Sensors using Silicon based materials
Research output: Research - peer-review › Poster – Annual report year: 2008

Ultra Soft cantilever based Sensors using Silicon based materials
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Nanoscale Four-Point Probes
Research output: Research › Ph.D. thesis – Annual report year: 2007

SU-8 Cantilever Sensor with Integrated Read-Out
Research output: Research › Ph.D. thesis – Annual report year: 2007

Batch fabrication of nanotubes suspended between microelectrodes
Research output: Research › Journal article – Annual report year: 2007

Cantilever-based sensor with integrated optical read-out using single mode waveguides
Research output: Research › Article in proceedings – Annual report year: 2007

Comparison of several methods for chemical modification and micropatterning of the SU-8 photoresist
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Design, fabrication and testing of a novel MEMS resonator for mass sensing applications
Research output: Research › Journal article – Annual report year: 2007

Fabrication of bulk acoustic silicon disk resonator for liquid operation
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Fabrication of magnetic cantilevers using a polymer composite
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Fabrication of MEMS bridge for explosive detection
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Inherently conductive polymer thin film piezoresistors
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Integrated optical readout for miniaturization of cantilever-based sensor system
Research output: Research › Journal article – Annual report year: 2007

Mass and position determination of attached particles on cantilever based mass sensors
Research output: Research › Journal article – Annual report year: 2007

Measurement of the resonant frequency of nano-scale cantilevers by hard contact readout
Research output: Research › Conference abstract in proceedings – Annual report year: 2007

Miniature sensor suitable for electronic nose applications
Research output: Research › Journal article – Annual report year: 2007

Novel method for chemical modification and patterning of the SU-8 photoresist
Research output: Research › Article in proceedings – Annual report year: 2007
Optimized SU-8 processing for the fabrication of thin polymer cantilevers
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2007

Poly 3,4-Ethylenedioxythiophene (PEDT) strain gauge
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2007

Reliability of poly 3,4-ethylenedioxythiophene strain gauge
Research output: Research - peer-review › Journal article – Annual report year: 2007

Silicon nitride micro/nano mechanical devices with integrated strain gauge readout
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2007

Single-mode waveguides with SU-8 polymer core and cladding for MOEMS applications
Research output: Research - peer-review › Journal article – Annual report year: 2007

Alternative Actuation and Detection Principles for Resonating Cantilevers
Research output: Research › Ph.D. thesis – Annual report year: 2006

Controlled Positioning of Carbon Nanotubes for Mass Sensing
Research output: Research › Ph.D. thesis – Annual report year: 2006

Nano-cantilevers fully integrated with CMOS for Ultrasensitive mass detection
Research output: Research › Ph.D. thesis – Annual report year: 2006

Batch fabrication of nanotubes suspended between microelectrodes
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2006

Cantilever based mass sensor with hard contact readout
Research output: Research - peer-review › Journal article – Annual report year: 2006

Cantilever readout by hard contact
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Characterisation Of Mechanical Sensors Using A Custom Built Characterisation System
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Immobilisation of DNA to polymerised SU-8 photoresist
Research output: Research - peer-review › Journal article – Annual report year: 2006

Integrated tunneling sensor for nanoelectromechanical systems
Research output: Research - peer-review › Journal article – Annual report year: 2006

Low-noise polymeric nanomechanical biosensors
Research output: Research - peer-review › Journal article – Annual report year: 2006

Microfabricated photoplastic cantilever with integrated photoplastic/carbon based piezoresistive strain sensor
Research output: Research - peer-review › Journal article – Annual report year: 2006

Monolithic single mode SU-8 waveguides for integrated optics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006
Nano and micro-cantilever sensors – new materials and new read-out principles
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Nano-mechanical resonators for mass sensing applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Novel fabrication technique for free-hanging polymeric structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Optimized dry-release and passivation of thin SU-8 cantilevers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Piezoresistive SU-8 cantilever floor for investigation of cell-substrate interactions and biomechanics
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Polymeric cantilever-based biosensors with integrated readout
Research output: Research - peer-review › Journal article – Annual report year: 2006

Reliability of Poly (3,4-Ethylenedioxi)thiophene) strain gauge
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Reliability of Poly (3,4-Ethylenedioxi)thiophene) Strain Gauge
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Reliability of Poly (3,4-Ethylenedioxi)thiophene) Strain Gauge
Research output: Research - peer-review › Poster – Annual report year: 2006

Self-positioning of polymer membranes driven by thermomechanically induced plastic deformation
Research output: Research - peer-review › Journal article – Annual report year: 2006

Sloped side walls in SU-8 structures with ‘Step-and-Flash’ processing
Research output: Research - peer-review › Journal article – Annual report year: 2006

SU-8 cantilever chip interconnection
Research output: Research - peer-review › Journal article – Annual report year: 2006

Surface stress measurements in liquid using SU-8 cantilevers with integrated readout
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

System on chip mass sensor based on polysilicon cantilevers arrays for multiple detection
Research output: Research - peer-review › Journal article – Annual report year: 2006

Temperature effects in Au piezoresistors integrated in SU-8 cantilever chips
Research output: Research - peer-review › Journal article – Annual report year: 2006

Three-dimensional microfabrication in negative resist using printed masks
Research output: Research - peer-review › Journal article – Annual report year: 2006

Towards on-chip explosive detection using silicon cantilevers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006
Wafer-scale fabrication of suspended TiW Nanowires
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Characterization of the Resonant Properties of Multi-layer Cantilever Sensors
Research output: Research › Ph.D. thesis – Annual report year: 2005

Aluminum nano-cantilevers for high sensitivity mass sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Aluminum nanocantilevers for high sensitivity mass sensors
Research output: Research - peer-review › Journal article – Annual report year: 2005

Aluminum nanocantilevers for high sensitivity mass sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Building a multi-walled carbon nanotube-based mass sensor with the atomic force microscope
Research output: Research - peer-review › Journal article – Annual report year: 2005

Cantilever Based Sensing Devices for Diagnostics
Research output: Research › Paper – Annual report year: 2005

Cantilever Based Sensing Devices with integrated Read-out and Electronics
Research output: Research › Paper – Annual report year: 2005

Cantilever surface stress sensors with single-crystalline silicon piezoresistors
Research output: Research - peer-review › Journal article – Annual report year: 2005

Cell Total Analysis System
Research output: Research › Poster – Annual report year: 2005

Characterization system for resonant micro- and nanocantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Contact printed masks for 3D microfabrication in negative resist
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Contact printed masks for 3D microfabrication in negative resists
Research output: Research › Conference abstract in proceedings – Annual report year: 2005

Controlled out-of-plane Positioning of Microfluidic Components in SU-8 driven by Plastic Strain
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Design, Fabrication and Characterization of a Submicroelectromechanical Resonator with Monolithically Integrated CMOS Readout Circuit
Research output: Research - peer-review › Journal article – Annual report year: 2005

Direct Real-time Immunodetection of the Human Growth Hormone with Polymeric Nanomechanical Sensors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Double sided surface stress cantilever sensor
Research output: Research - peer-review › Journal article – Annual report year: 2005
Dry release of all-polymeric structures
Research output: Research - peer-review › Journal article – Annual report year: 2005

Effect of gold coating on the Q-factor of resonant cantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Enhanced functionality of cantilever based mass sensors using higher modes
Research output: Research - peer-review › Journal article – Annual report year: 2005

Enhanced functionality of cantilever based mass sensors using higher modes and functionalized particles
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Enhanced sensitivity of gold coated resonant microcantilever at atmospheric pressure
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Fast packaging of polymer cantilever chip by micromilling
Research output: Research › Poster – Annual report year: 2005

Fully integrated nanoresonator system with attogram/Hz mass resolution
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Highly Sensitive Polymer-based Cantilever-sensors for DNA Detection
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Highly Sensitive Polymer-based Cantilever-sensors for DNA Detection
Research output: Research - peer-review › Journal article – Annual report year: 2005

Investigation of the bond strength between the photo-sensitive polymer SU-8 and gold
Research output: Research - peer-review › Journal article – Annual report year: 2005

Mass Sensitivity of Cantilever Based Mass Sensors as a Function of Mass-Position
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Nanocantilever Sensitivity Degradation From Bimorph Effects
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Nano Environment Monitoring Unit for Space Application
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Nanomechanical Cantilever based Explosive Vapour Detection System
Research output: Research › Poster – Annual report year: 2005

Nanoscience Research at Technological University of Denmark and Industrial Perspectives
Research output: Research › Paper – Annual report year: 2005

Novel resonant cantilever mass change detection and resonant frequency tuning.
Research output: Research - peer-review › Journal article – Annual report year: 2005
Polymeric Micro-channel-based Functionalisation System for Micro-Cantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Resonators with integrated CMOS circuitry for mass sensing applications, fabricated by electron beam lithography
Research output: Research - peer-review › Journal article – Annual report year: 2005

Self-actuated Polymeric Valve for Autonomous Sensing and Mixing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

Sloped Side Walls in SU-8 Structures with 'Step and Flash'
Research output: Research - peer-review › Article in proceedings – Annual report year: 2005

SU-8 Cantilever Sensor System with Integrated Readout
Research output: Research - peer-review › Journal article – Annual report year: 2005

Temperature and pressure dependence of resonance in multi-layer microcantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2005

Ultrasensitive mass sensor fully integrated with complementary metal-oxide-semiconductor circuitry
Research output: Research - peer-review › Journal article – Annual report year: 2005

A longitudinal thermal actuation principle for mass detection using a resonant micro-cantilever in a fluid medium
Research output: Research - peer-review › Conference article – Annual report year: 2004

An approach to a multi walled carbon nanotube based mass sensor
Research output: Research - peer-review › Conference article – Annual report year: 2004

Dry release of suspended nanostructures
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nucleic acid reactions investigated by cantilever-based sensors
Research output: Research › Ph.D. thesis – Annual report year: 2004

Organic and Biological Molecular Layers on Functionalised Sensor Surfaces Studies with Atomic Force Microscopy
Research output: Research › Ph.D. thesis – Annual report year: 2004

Cantilever based sensors for surface stress measurements
Research output: Research › Ph.D. thesis – Annual report year: 2004

AFM lithography for the definition of nanometre scale gaps: application to the fabrication of a cantilever-based sensor with electrochemical current detection
Research output: Research - peer-review › Journal article – Annual report year: 2004

A wet chemical treatment for specific change of the contact angle of SU-8
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

DNA hybridization detected by cantilever-based sensor with integrated piezoresistive read-out
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004
Dry release of all polymer structures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Electron beam lithography based fabrication of nanocantilever mass sensor systems on pre-processed CMOS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Fabrication of cantilever based mass sensors integrated with CMOS using direct write laser lithography on resist
Research output: Research - peer-review › Journal article – Annual report year: 2004

Highly Ordered Oligonucleotide Domain formation on Au(111),
Research output: Research › Conference abstract for conference – Annual report year: 2004

Investigation of the bond strength between the photo-sensitive polymer SU-8 and Au
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Laser lithography on resist bi-layer for nanoelectromechanical systems prototyping
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nanocantilever based mass sensors integrated with CMOS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Novel Resonant cantilever mass change detection and resonant frequency tuning
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

On the electromechanical modelling of a resonating nano-cantilever-based transducer
Research output: Research - peer-review › Journal article – Annual report year: 2004

Polymer cantilever platform for dielectrophoretic assembly of carbon nanotubes
Research output: Research - peer-review › Journal article – Annual report year: 2004

Polymeric mechanical sensor with integrated strain gauge read-out based on a piezoresistive carbon-black polymer composite material
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Polymeric mechanical sensor with integrated strain gauge read-out based on a piezoresistive Su-8/carbon-black composite
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Polymeric micro channel system for easy sensitisation of micro cantilevers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Rendering SU-8 hydrophilic to facilitate use in micro channel fabrication
Research output: Research - peer-review › Journal article – Annual report year: 2004

Self-Assembly of Sulfur Achored Oligonucleotide.
Research output: Research › Conference abstract for conference – Annual report year: 2004

SU-8 cantilever sensor with integrated read-out
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

SU-8 cantilever platform for dielectrophoretic assembly of carbon nanotubes
Research output: Research - peer-review › Journal article – Annual report year: 2004
SU-8 cantilever sensor with integrated read-out
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Temperature dependence of surface stress in nanocantilever mass detectors
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2004

Temperature dependence of surface stress in nanocantilever mass detectors
Research output: Research - peer-review › Article in proceedings – Annual report year: 2004

Thiol- and Disulfide-modified Oligonucleotide Monolayer Structures on Polycrystalline and Single-Crystal Au(111) Surfaces
Research output: Research - peer-review › Journal article – Annual report year: 2004

Thiol- and disulfide-modified oligonucleotide monolayer structures on polycrystalline and single-crystal Au(111) surfaces
Research output: Research - peer-review › Journal article – Annual report year: 2004

Nano-resonators for high resolution mass detection
Research output: Research › Ph.D. thesis – Annual report year: 2003

In Situ Scanning Tunneling Microscopy and Microcantilever Investigations of yeast cytochrome c on gold
Research output: Research › Ph.D. thesis – Annual report year: 2003

A cantilever-based sensor for thermal cycling in buffer solution
Research output: Research - peer-review › Journal article – Annual report year: 2003

Adsorption and Interfacial Electron Transfer of Saccharomyces Cerevisiae: Yeast Cytochrome c Monolayers on Au(111) Electrodes
Research output: Research - peer-review › Journal article – Annual report year: 2003

AFM lithography of aluminum for fabrication of nanomechanical systems
Research output: Research - peer-review › Journal article – Annual report year: 2003

A longitudinal thermal actuation principle for mass detection using a resonant micro-cantilever in a fluid medium
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

An approach to a multi walled carbon nanotube based mass sensor
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2003

Atomic force microscope characterization of a resonating nanocantilever
Research output: Research - peer-review › Journal article – Annual report year: 2003

Dry release of suspended nanostructures
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Electron transfer behaviour of biological macromolecules towards the single-molecule level
Research output: Research - peer-review › Journal article – Annual report year: 2003

FLEXIBLE STRUCTURE WITH INTEGRATED SENSOR/ACTUATOR
Research output: Research › Patent – Annual report year: 2003
Hybridisation of short DNA molecules investigated with in situ atomic force microscopy
Research output: Research - peer-review › Conference article – Annual report year: 2003

Lift-off by local laser lithography for stamp manufacturing
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Monolithic integration of mass sensing nano-cantilevers with CMOS circuitry
Research output: Research - peer-review › Journal article – Annual report year: 2003

Nanobubble trouble on gold surfaces
Research output: Research - peer-review › Journal article – Annual report year: 2003

Nanocantilever based mass sensor integrated with cmos circuitry
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Nanopatterning by AFM nano-oxidation of thin aluminum layers as a tool for the prototyping of nanoelectromechanical systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

NEMS prototyping using laser lithography
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Optimised cantilever biosensor with piezoresistive read-out
Research output: Research - peer-review › Conference article – Annual report year: 2003

Polymeric Cantilever Arrays for Biosensing Applications
Research output: Research - peer-review › Journal article – Annual report year: 2003

Polymeric Mechanical Sensors with Strain Gauge Readout in a Microfluidic System
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Polymeric mechanical sensor with piezoresistive read-out integrated in a microfluidic system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2003

Adsorption kinetics and mechanical properties of thiol-modified DNA-oligos on gold investigated by microcantilever sensors
Research output: Research - peer-review › Journal article – Annual report year: 2002

AFM characterization of a resonating nanocantilever
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

A mass sensor with atto-gram sensitivity using resonating nanocantilevers
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Cantilever Biosensor with Integrated Read-out Optimised for Operation in Liquid
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

DNA immobilisator on gold surface for biosensors and microsystems; a fluorescence scanning study
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002
Formation of self-assembled monolayers of short DNA molecules, investigated with in situ Atomic Force Microscopy
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

In situ STM and Nanoscale Electronic Function of Redox Metalloprotein Monolayers on Single-Crystal Au(111)-surfaces
Research output: Research › Conference abstract for conference – Annual report year: 2002

In Situ STM and nanoscale electronic function of redox metalloprotein monolayers on single-crystal Au(111)-surfaces
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Nanopatterning by AFM nano-oxidation of thin aluminum layers as a tool for the prototyping of nanoelectromechanical systems
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Optimization of sensitivity and noise in piezoresistive cantilevers
Research output: Research - peer-review › Journal article – Annual report year: 2002

Scanning microscopic four-point conductivity probes
Research output: Research - peer-review › Journal article – Annual report year: 2002

Translating molecular interaction into a nanomechanical signal
Research output: Research - peer-review › Article in proceedings – Annual report year: 2002

Adsorption mechanisms for differently treated thiolmodified ssDNA on Au
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

A Microcantileverbased detection principle for MTAS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Cantilever-based bio-chemical sensor integrated in a microliquid handling system
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Electromechanical model of a resonating nano-cantilever-based sensor for high-resolution and high-sensitivity mass detection
Research output: Research - peer-review › Journal article – Annual report year: 2001

High mass and spatial resolution mass sensor based on resonating nano-cantilevers integrated with CMOS
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

High mass and spatial resolution mass sensor based on resonating nano-cantilevers integrated with CMOS ciriuty
Research output: Research - peer-review › Article in proceedings – Annual report year: 2001

Light propagation studies on laser modified waveguides using scanning near-field optical microscopy
Research output: Research - peer-review › Journal article – Annual report year: 2001

Modular design of AFM probe with sputtered silicon tip
Research output: Research - peer-review › Journal article – Annual report year: 2001

Stress Formation During Self-Assembly of Alkanethiols on Differently Pre-Treated Gold Surfaces
Research output: Research - peer-review › Journal article – Annual report year: 2001
AFM probe with piezoresistive read-out and highly symmetrical Wheatstone bridge arrangement
Research output: Research - peer-review › Journal article – Annual report year: 2000

A microcantilever-based alcohol vapor sensor-application and response model
Research output: Research - peer-review › Journal article – Annual report year: 2000

Environmental sensors based on micromachined cantilevers with integrated read-out
Research output: Research - peer-review › Journal article – Annual report year: 2000

Fabrication and characterization of nano-resonating devices for mass detection
Research output: Research - peer-review › Journal article – Annual report year: 2000

In Situ Nanoscale Biochemistry Probed by SPM-based Technologies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

In Situ Nanoscale Biochemistry Probed by SPM-Based Technologies
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Nanocantilever devices for mass detection - fabrication and characterization
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Nanocantilever integrated with CMOS circuitry for high sensitivity mass detection
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Nanomechanical devices for mass detection realized by laser and atomic force microscopy and compatible with CMOS technology
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

Piezoresistive atomic force microscopy probe with sputtered silicon tip
Research output: Research - peer-review › Article in proceedings – Annual report year: 2000

AFM probe with piezoresistive read-out and highly symmetrical Wheatstone bridge arrangement.
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Combined laser and atomic force microscope lithography on aluminum: Mask fabrication for nanoelectromechanical systems
Research output: Research - peer-review › Journal article – Annual report year: 1999

Gas sensor based on micromachined cantilevers with integrated read-out.
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Images of analytical chemistry
Research output: Research › Journal article – Annual report year: 1999

In Situ Scanning Probe Microscopy and New Perspectives in Analytical Chemistry
Research output: Research - peer-review › Journal article – Annual report year: 1999

Laser and AFM lithography on aluminum: a toolbox for fabrication of nanoelectromechanical structures.
Research output: Research - peer-review › Article in proceedings – Annual report year: 1999

Noise in piezoresistive atomic force microscopy
Research output: Research - peer-review › Journal article – Annual report year: 1999
Fabrication of submicron suspended structures by laser and AFM lithography on aluminium combined with reactive ion etching
Research output: Research - peer-review › Journal article – Annual report year: 1998

Fabrication of submicron suspended structures by laser and AFM lithography on aluminum combined with reactive ion etching.
Research output: Research - peer-review › Journal article – Annual report year: 1998

Novel AFM Probes - Fabrication and Characterization
Research output: Research › Article in proceedings – Annual report year: 1998

Novel AFM Probes - Fabrication and Characterization
Research output: Research › Article in proceedings – Annual report year: 1998

AFM probes with directly fabricated tips
Research output: Research › Journal article – Annual report year: 1996

Indirect tip fabrication for scanning probe microscopy
Research output: Research › Journal article – Annual report year: 1996

Effects of small-angle scattering on Weiss oscillations in a GaAs lateral superlattice
Research output: Research › Journal article – Annual report year: 1995

Projects:

3D printing of micro-container for oral delivery of probiotics
Project: PhD

Evaluating microcontainers for oral delivery of probiotics
Project: PhD

Microcontainers for Oral Delivery of Probiotics
Project: PhD

Microcontainers for oral drup delivery
Project: PhD

Development of Highly sensitive raman spectroscopy system for monitoring of multicomponent drug mixtures in the PPM Concentration range
Project: PhD

Optical Sensor Disc
Project: PhD

Sensors on disc
Project: PhD

Fabrication of biodegradable microcontainers for oral drug delivery
Project: PhD
Drug transport in in vitro intestine models
Project: PhD

Nanomechanical Sensors
Project: PhD

Nanoskala multi-punkts prober fabrikert ved elektron-stråle litografi
Project: PhD

Organiske og Biologiske molekullag på funktionelle sensor-overflader studeret med atomic force mikroskopi
Project: PhD

Mucoadhesive microcontainers for oral drug delivery
Project: PhD

Development of Surface-Enhanced Raman Scattering Sensors
Project: PhD

Additive Manufacturing and Characterization of Mini Devices for Oral Drug Delivery
Project: PhD

Miniaturization of food safety analysis
Project: PhD

Loading of microcontainers for oral drug delivery
Project: PhD

Carbon based micromechanical sensors
Project: PhD

Microcontainers for oral vaccine delivery
Project: PhD

Chemical/Biological sensing using CMUTs
Project: PhD

SERS based Sensing and Centrifugal Microfluidics
Project: PhD

Disc System for Cellular Studios
Project: PhD

Agglutination based Sensing and Centrifugal Microfluidics
Project: PhD

Electrochemical/Agglutination based Sensing and Centrifugal Microfluidics
Project: PhD

Hollow Cantilever-like sensors on a rotating disc
Project: PhD
Cantilever sensor on a rotating disc
Project: PhD

Spm-probes
Project: PhD

Packaging of integrated optical components
Project: PhD

Investigation and realigation of a Mass Sensor with NanoElectroMechanicalSystem (NEMS)
Project: PhD

Nanoresonators for high resolution mass detection
Project: PhD

Packaging of Bioprobe Cantilevers
Project: PhD

Nanoparticles and Health
Project: PhD

Development of Mechanical Biosensor for Metabolomics
Project: PhD

Micro-scale temperature sensors for calorimetry and cantilever based sensing
Project: PhD

Temperature Stable Mass Sensors
Project: PhD

Cantilever-based sensors for explosives detection
Project: PhD

Micro-calorimetric sensors for explosives detection
Project: PhD

Elektrokemi og in situ scanning tunnel mikroskopi af biologisk betydningsfulde overgangsmetalkomplekser
Project: PhD

Fabrication, characterization and implementation of cantilevers for biochemical sensing
Project: PhD

Molecular Dynamics Simulations of Proteins, Biomembrane Systems, and Interfaces
Project: PhD

Mikro-systemer til (bio-) kemisk analyse
Project: PhD

Fabrication of Polymeric Cantilevers with Integrated Optical Read-Out
Project: PhD
Autonomous Diagnostic Array for Biomedical Applications  
Project: PhD

Activation of SU8 Polymer Cantilever Systems for the Detection of Methicillin-Resistant Staphylococcus aureus (MRSA)  
Project: PhD

Micromechanical Pathogen Sensor System  
Project: PhD

Investigation of Nano-resonators for Mass Detection  
Project: PhD

Design, fabrication and implementation of a highly Versatile High Resolution Mass Sensor  
Project: PhD

Fabrication and Characterization of Nano-Resonators for Mass Detection  
Project: PhD

Optiske bistabilitet i integreret optik  
Project: PhD

Nucleic acid Reactions investigated by Cantilever Based Sensors  
Project: PhD

Cantilever-based sensors for surface stress measurements  
Project: PhD

Fabrication and characterization of drug delivery vehicles  
Project: PhD

3D nanolithography for self-aligned nano- and microstructures  
Project: PhD

High Frequency Resonators for Liquid based Bio/Chemical Diagnostics and Monitoring Applications  
Project: PhD

Electromechanical sensors on a rotating disc  
Project: PhD

SERS as tool for monitoring lung infections  
Project: PhD

Surface chemistry for cantilever-like end SERS sensors for DVD-based platform  
Project: PhD

Understanding Optical Properties of nanopillar arrays  
Project: PhD

Surface Plasmon based sensors using nanopillar arrays  
Project: PhD
Development of a micromechanical Photothermal Spectrometer
Project: PhD

Loading of micro-containers for oral drug delivery
Project: PhD

Cantilever-like sensors for DVD Platform
Project: PhD

Fabrication of biopolymer micro-container for oral drug delivery
Project: PhD

Micro and Nanomechanical Sensors Realised In Functionalised Polymers
Project: PhD

Nanostructuring of solar cell surfaces
Project: PhD

Piezoresistivity for Microsystems
Project: PhD

High-throughput Gene Expression profiling (HT GenExp) technology for assessing heterogeneity in human stem cells
Project: PhD

High frequency bulk resonators for bio/chemical diagnostics and monitoring applications
Project: PhD

Development of cantilever sensors for ion detection
Project: PhD

Targeting Approaches to Oral Drug Delivery with Microcontainers
Project: PhD

Microcantilevers as biosensors
Project: Research

Nanocantilevers for mass detection
Project: Research

Nanolithography on aluminium thin films
Project: Research

AFM probes
Project: Research

Nanoresonators with integrated circuitry for high sensitivity and high resolution mass detection
Project: Research

Polymeric cantilever for bio-chemical sensing
Project: Research
Activities:

Nanomechanical Infrared Spectroscopy with completely free-standing pyrolytic carbon string resonators for paracetamol detection
Activity: Talks and presentations › Conference presentations

Pyrolytic carbon for MEMS string resonators
Activity: Talks and presentations › Conference presentations

3D printed system for testing intestinal drug transport
Activity: Talks and presentations › Conference presentations

Loading of poorly soluble drugs by supercritical CO2 impregnation into microcontainers for oral drug delivery
Activity: Talks and presentations › Conference presentations

3D printed system for based on hydrogels for drug transport
Activity: Talks and presentations › Conference presentations

Loading of poorly soluble drugs by supercritical CO2 impregnation into microcontainers for oral drug delivery
Activity: Talks and presentations › Conference presentations

A nanofiltration technique for analyte extraction from complex matrix and surface enhanced Raman spectroscopy based sensing
Activity: Talks and presentations › Conference presentations

Structural aspects of hydrates – insight into phase transformations using nanomechanical sensors
Activity: Talks and presentations › Conference presentations

Integration of Nanopillar SERS Substrates in a Microfluidic Platform for Analyte Separation and Quantitative Sensing
Activity: Talks and presentations › Conference presentations

SERS combiner for high-speed and high-sensitive quantitative analysis
Activity: Talks and presentations › Conference presentations

Annual Conference on Commercialization of Micro and Nano Systems
Activity: Attending an event › Participating in or organising a conference

Detection of multiple bacteria cells using cantilever based mass sensors
Activity: Talks and presentations › Conference presentations

Talk about "Micro and Nanomechanical sensors; new materials and read-out methods" presented at ICMEMS 2009
Activity: Talks and presentations › Conference presentations

Talk about "New Materials and read-out methods for Cantilever-based sensing" Presented at Instute of Physics, Academia Sinica
Activity: Talks and presentations › Conference presentations

Talk about "Nanomechanical Sensors" Presented at National Cheng Kung University
Activity: Talks and presentations › Conference presentations
Talk about "Fabrication of Cantilevers by Nanoimprint Lithography" Presented at "International Workshop on Cantilever sensors"
Activity: Talks and presentations › Conference presentations

Talk about "Laser self-mixing interferometry in VCSELs - an ultra-compact and massproducible deflection detection system for Nanomechanical Polymer cantilever sensors" Presented at "International workshop on cantilever Sensors"
Activity: Talks and presentations › Conference presentations

Rapid Methods Europe 2008
Activity: Attending an event › Participating in or organising a conference

Talk about "Development in materials and read-out methods for cantilever-based sensing" Presented at "IEEE International Conference and Nano/Micro Engineered and Molecular Systems"
Activity: Talks and presentations › Conference presentations

2008 3rd IEEE International Conference on Nano/Micro Engineered and Molecular Systems
Activity: Attending an event › Participating in or organising a conference

Talk about "Sensors Based on Miniature Bridges, Diving Boards and Lids" presented at "21st Century Medicine conference: Breakthroughs and Challenges".
Activity: Talks and presentations › Conference presentations

The 5th International Workshop on Nano Mechanical Sensing
Activity: Attending an event › Participating in or organising a conference