Nanoprobes - DTU Orbit (03/10/2018)

Nanoprobes

Department of Micro- and Nanotechnology

Organisational unit: Section

Publications:

2D-BN nanoparticles as a spectroscopic marker and drug delivery system with protection properties
Publication: Research - peer-review › Journal article – Annual report year: 2018

An automated flow-injection enzyme-linked immunosorbent assay for the detection of Zearalenone
Jantra, J., Zor, K., Hedström, M. & Mattiasson, B. 2018

A novel method for quantitative height measurement based on an astigmatic optical profilometer
Publication: Research - peer-review › Journal article – Annual report year: 2018

A Viscoelastic Catastrophe
Jensen, K. E., Szabo, P. & Okkels, F. 2018 Article.
Publication: Research › Internet publication – 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
Kristensen, M., Nielsen, L. H., Zor, K., Boisen, A., Christensen, M. V., Berthelsen, J. & Mørck Nielsen, H. 2018 In : Bioconjugate Chemistry. 29, 2, p. 371-381
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

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

Development of electrosprayed mucoadhesive chitosan microparticles
Moreno, J. A. S., Mendes, A. C., Stephansen, K., Engwer, C., Goycoolea, F. M., Boisen, A., Nielsen, L. H. & Chronakis, I. S. 2018 In : Carbohydrate Polymers. 190, p. 240-247
Publication: Research - peer-review › Journal article – Annual report year: 2018

Drug loaded biodegradable polymer microneedles fabricated by hot embossing
Publication: Research - peer-review › Journal article – Annual report year: 2018
Effects of water-absorption and thermal drift on a polymeric photonic crystal slab sensor
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

Fabrication and loading of polycaprolactone microcontainers on water soluble release layer for oral drug delivery
Abid, Z., Petersen, R. S., Boisen, A. & Keller, S. S. 2018
Publication: 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
Wu, K., Li, T., Schmidt, M. S., Rindzevicius, T., Ndoni, S. & Boisen, A. 2018
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Gold Nanoparticles Sliding on Recyclable Nanohoodoos-Engineered for Surface-Enhanced Raman Spectroscopy
Publication: Research - peer-review › Journal article – Annual report year: 2018

Hacking CD/DVD/Blu-ray for Biosensing
Publication: Research - peer-review › Journal article – Annual report year: 2018

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

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

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

Micropatterned Carbon-on-Quartz Electrode Chips for Photocurrent Generation from Thylakoid Membranes
A nanofiltration technique for analyte extraction from complex matrix and surface enhanced Raman spectroscopy based sensing
Durucan, O., Rindzevicius, T., Schmidt, M. S., Ilchenko, O. & Boisen, A. 2017
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Animal models for evaluation of oral delivery of biopharmaceuticals
Publication: Research - peer-review › Journal article – Annual report year: 2017

An integrated lab-on-a-disc approach to detect inflammatory biomarkers from whole blood
Publication: 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
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

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

Butyrate-Loaded Chitosan/Hyaluronan Nanoparticles: A Suitable Tool for Sustained Inhibition of ROS Release by Activated Neutrophils
Publication: Research - peer-review › Journal article – Annual report year: 2017

Challenges in the integration of silicon SERS substrates into a polypropylene injection moulded microfluidic chip
Serioli, L., Morelli, L., Matteucci, M., Zor, K. & Boisen, A. 2017
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

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

Ciprofloxacin-loaded sodium alginate/poly (lactic-co-glycolic acid) electrospun fibrous mats for wound healing
Publication: Research - peer-review › Journal article – Annual report year: 2017

Design and development of electrochemical polymer-based lab-on-a-disc devices for biological applications
Publication: Research › Ph.D. thesis – Annual report year: 2017

Detection of melamine in milk using nanopillar filters and Raman spectroscopy
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017
Detection of p-coumaric acid from cell supernatant using surface enhanced Raman scattering
Publication: Research - peer-review » Conference abstract in journal – Annual report year: 2017

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

Development of a Video-Microscopic Tool To Evaluate the Precipitation Kinetics of Poorly Water Soluble Drugs: A Case Study with Tadalafl and HPMC
Publication: Research - peer-review » Journal article – Annual report year: 2017

Extraction And SERS Based Detection Of Bacterial Metabolites In Mixture On A Centrifugal Microfluidic Device
Publication: 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
Publication: Research - peer-review » Journal article – Annual report year: 2017

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

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

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

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

Geometrically Optimized 3D Printed Mini-Devices for Oral Drug Delivery
Vaut, L., Jensen, K. E., Andersen, A. J., Tosello, G. & Boisen, A. 2017
Publication: Research - peer-review » Conference abstract for conference – Annual report year: 2017

Gold nanomaterials for the selective capturing and SERS diagnosis of toxins in aqueous and biological fluids
Publication: Research - peer-review » Journal article – 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
Publication: 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
Viehrig, M., Matteucci, M., Thilsted, A. H., Schmidt, M. S. & Boisen, A. 2017
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Immobilisation of barley aleurone layers enables parallelisation of assays and analysis of transient gene expression in single cells
Publication: Research - peer-review › Journal article – Annual report year: 2017

IR spectroscopy with pyrolytic carbon string resonator as a tool for particle detection
Publication: 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
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2017

Loading of Drug-Polymer Matrices in Microreservoirs for Oral Drug Delivery
Petersen, R. S., Keller, S. S. & Boisen, A. 2017 In : Macromolecular Materials & Engineering. 302, 3, 6 p., 1600366
Publication: Research - peer-review › Journal article – Annual report year: 2016

Low surface damage dry etched black silicon
Publication: Research - peer-review › Journal article – Annual report year: 2017

Macroscale SERS Uniformity and Reproducibility Using Densely Clustered Nanopillars
Wu, K., Schmidt, M. S., Rindzevicius, T., Thilsted, A. H. & Boisen, A. 2017
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Magnetic Bead-Based Biosensing on an Automated & Integrated Lab-on-a-Disc Platform
Publication: Research › Ph.D. thesis – Annual report year: 2018

Mechanical Resonators for Material Characterization: Sensor Development and Applications
Publication: Research › Ph.D. thesis – Annual report year: 2017

Microcontainers as an oral delivery system for spray dried cubosomes containing ovalbumin
Publication: Research - peer-review › Journal article – Annual report year: 2017
MICROCONTAINERS FOR INTESTINAL DRUG DELIVERY: in vivo and ex vivo study
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

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

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

Nanopillar Filters for Surface-Enhanced Raman Spectroscopy
Durucan, O., Rindzevicius, T., Schmidt, M. S., Matteucci, M. & Boisen, A. 2017 In : ACS Sensors. 2, 10, p. 1400-1404
Publication: Research - peer-review › Journal article – 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
Publication: Research - peer-review › Journal article – Annual report year: 2017

Numerical Optimization in Microfluidics
Publication: Research - peer-review › Book chapter – Annual report year: 2017

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

Photothermal Transport of DNA in Entropy-Landscape Plasmonic Waveguides
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

Powder embossing method for selective loading of polymeric microcontainers with drug formulation
Publication: Research - peer-review › Journal article – Annual report year: 2017

Quantification of a bacterial secondary metabolite by SERS combined with SLM extraction for bioprocess monitoring
Publication: Research - peer-review › Journal article – Annual report year: 2017
Quantitative Detection of Trace Level Cloxacillin in Food Samples Using Magnetic Molecularly Imprinted Polymer Extraction and Surface-Enhanced Raman Spectroscopy Nanopillars
Publication: Research - peer-review › Journal article – Annual report year: 2017

Recent advances in smart biotechnology: Hydrogels and nanocarriers for tailored bioactive molecules depot
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

Single step fabrication and loading of biopolymer microcontainers for oral drug delivery
Abid, Z., Petersen, R. S., Boisen, A. & Keller, S. S. 2017
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Surface Enhanced Raman Scattering for Quantification of p-Coumaric Acid Produced by Escherichia coli
Publication: Research - peer-review › Journal article – Annual report year: 2017

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

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

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

A Centrifugal Microfluidic Platform Using SLM Extraction: for combined sample clean-up and enrichment of trace analytes
Publication: 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
Uddin, R., Quan, X., Donolato, M., Burger, R. & Boisen, A. 2016
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Analyzing Engineered Nanoparticles using Photothermal Infrared Spectroscopy
Publication: Research › Ph.D. thesis – Annual report year: 2016
Black silicon laser-doped selective emitter solar cell with 18.1% efficiency
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Carbon nanopillars for enhanced stem cell differentiation and dopamine detection
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

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

Comparison of optomagnetic and AC susceptibility readouts in a magnetic nanoparticle agglutination assay for detection of C-reactive protein
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Comparison of Ultrasonic Welding and Thermal Bonding for the Integration of Thin Film Metal Electrodes in Injection Molded Polymeric Lab-on-Chip Systems for Electrochemistry
Matteucci, M., Heiskanen, A., Zor, K., Emménus, J. & Taboryski, R. J. 2016 In : Sensors. 16, 11, 12 p., 1795
Publication: Research - peer-review › Journal article – Annual report year: 2016

Detection methods for centrifugal microfluidic platforms
Burger, R., Amato, L. & Boisen, A. 2016 In : Biosensors and Bioelectronics. 76, p. 54-67
Publication: Research - peer-review › Journal article – Annual report year: 2016

Detection of nerve gases using surface-enhanced Raman scattering substrates with high droplet adhesion
Publication: Research - peer-review › Journal article – Annual report year: 2016

Development of a video-microscopic method to compare the effect of a precipitation inhibitor
Publication: Research - peer-review › Poster – Annual report year: 2016

Development of a video-microscopic method to compare the effect of precipitation inhibitors
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DNA self-assembly on graphene surface studied by SERS mapping
Publication: Research - peer-review › Journal article – Annual report year: 2016

Electrospraying Chitosan Particles for Oral Vaccine Delivery
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016
Electrospraying particles for loading into microcontainers for drug delivery
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Engineering Plasmonic Nanopillar Arrays for Surface-enhanced Raman Spectroscopy
Publication: Research › Ph.D. thesis – Annual report year: 2016

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

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

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Fabrication of scalable tissue engineering scaffolds with dual-pore microarchitecture by combining 3D printing and particle leaching
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Geometric Optimization of Microcontainers for Oral Drug Delivery
Jensen, K. E., Vaut, L. & Boisen, A. 2016
Publication: 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
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Hollow MEMS: An Integrated Sensor for Combined Density, Viscosity, Buoyant Mass and IR Absorption Spectrometry
Publication: Research › Ph.D. thesis – Annual report year: 2016

Lab-on-a-disc agglutination assay for protein detection by optomagnetic readout and optical imaging using nano- and micro-sized magnetic beads
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Lab-on-a-disc device for screening of genetically engineered E.coli cells
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Lifetime of ALD Al2O3 Passivated Black Silicon Nanostructured for Photovoltaic Applications
Plakhotnyuk, M., Davidsen, R. S., Schmidt, M. S., Malureanu, R., Stamate, E. & Hansen, O. 2016
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Lifetime of Nano-Structured Black Silicon for Photovoltaic Applications
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

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

Macroscale SERS Uniformity and Reproducibility Using Densely Clustered Nanopillars
Wu, K., Schmidt, M. S., Rindzevicius, T., Thilsted, A. H. & Boisen, A. 2016 Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2017

Microcontainers - an oral drug delivery system for poorly soluble drugs
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Microcontainers as effective drug delivery vehicles: advances in the drug loading
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Microcontainers for Intestinal Drug Delivery
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2016

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

Monitoring intra- and extracellular redox capacity of intact barley aleurone layers responding to phytohormones
Publication: Research - peer-review › Journal article – Annual report year: 2016

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

Nanomechanical Pyrolytic Carbon Resonators: Novel Fabrication Method and Characterization of Mechanical Properties
Nanostructuring of Solar Cell Surfaces
Publication: Research › Ph.D. thesis – Annual report year: 2016

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

On-chip RF-to-optical transducer
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Optical two-beam trap in a polymer microfluidic chip
Publication: Research - peer-review › Article in proceedings – 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
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Perforated SIN membrane resonators for nanomechanical IR spectroscopy poster
Kurek, M., Carnoy, M., Boisen, A. & Schmid, S. 2016
Publication: Research - peer-review › Poster – Annual report year: 2016

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

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

Rapid Voltammetric Measurements at Conducting Polymer Microelectrodes Using Ultralow-Capacitance Poly(3,4-ethylenedioxythiophene):Toylelate
Publication: Research - peer-review › Journal article – Annual report year: 2016

SERS detection of pneumonia in breath of children with cystic fibrosis
Publication: Research › Ph.D. thesis – Annual report year: 2017

Spray Drying of Cubosomes for Oral Vaccine Delivery
Publication: 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
Publication: 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
Publication: 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
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2016

Transparent Substrates for Plasmonic Sensing by Lithography-Free Fabrication
Publication: Research › Ph.D. thesis – Annual report year: 2017

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

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Triple co-culture cell model as an in vitro model for oral particulate vaccine systems
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Wafer-Scale Nanopillars Derived from Block Copolymer Lithography for Surface-Enhanced Raman Spectroscopy
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A method for the chemical modification of polychlorinated biphenyls for improved affinity towards noble metal surfaces.
Rindzevicius, T., Boisen, A., Schmidt, M. S., Barten, J. A. & Vorobiev, M. 17 Dec 2015
Publication: Research › Patent – Annual report year: 2015

Electrochemical method for transferring graphene
Pizzocchero, F., Booth, T. J., Kostesha, N., Amato, L. & Bøggild, P. 15 Jan 2015
Publication: Research › Patent – Annual report year: 2015
Adsorption and Vibrational Study of Folic Acid on Gold Nanopillar Structures Using Surface-enhanced Raman Scattering Spectroscopy
Publication: 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
Publication: 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
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

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

An impedance method for spatial sensing of 3D cell constructs – towards applications in tissue engineering
Publication: Research - peer-review › Journal article – Annual report year: 2015

Baking-powder driven centripetal pumping controlled by event-triggering of functional liquids
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Carbon nanopillars for stem cell differentiation and dopamine detection
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

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

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

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

Dense high-aspect ratio 3D carbon pillars on interdigitated microelectrode arrays
Publication: Research - peer-review › Journal article – Annual report year: 2016
Detection of bacterial metabolites through dynamic acquisition from surface enhanced raman spectroscopy substrates integrated in a centrifugal microfluidic platform
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Development of a SERS aptasensor for detection of medical residues
Publication: Research › Ph.D. thesis – Annual report year: 2015

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

Explosive and chemical threat detection by surface-enhanced Raman scattering: A review
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Fabrication and improvement of nanopillar InGaN/GaN light-emitting diodes using nanosphere lithography
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Fabrication and loading of oral drug delivery microcontainers using hot punching
Publication: 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
Petersen, R. S., Keller, S. S., Hansen, O. & Boisen, A. 2015 In : Journal of Micromechanics and Microengineering. 25, 5, 12 p., 055021
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Publication: Research - peer-review › Journal article – Annual report year: 2015

Hot embossing and mechanical punching of biodegradable microcontainers for oral drug delivery
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Hydrodynamics studies of cyclic voltammetry for electrochemical micro biosensors
Impedimetric Toxicity Assay Evaluating Free and Liposome-loaded Anticancer drugs

Impedimetric toxicity assay in microfluidics using free and liposome-encapsulated anticancer drugs

Integrating Electrochemical Detection with Centrifugal Microfluidics for Real-Time and Fully Automated Sample Testing

Integration of agglutination assay for protein detection in microfluidic disc using Blu-ray optical pickup unit and optical fluid scanning

Intelligent 3D Cell Scaffolds for Environmental and Life Science Applications

Interdependence of initial cell density, drug concentration and exposure time revealed by real-time impedance spectroscopic cytotoxicity assay

Interdigitated Carbon Electrodes for Stem Cell Differentiation and Dopamine Detection

Luminescence enhancement of green InGaN/GaN nanopillar LEDs

Maskless Nanostructure Definition of Submicron Rear Contact Areas for Advanced Solar Cell Designs
Davidsen, R. S., Schmidt, M. S., Boisen, A. & Hansen, O. 2015

Mathematical model for biomolecular quantification using large-area surface-enhanced Raman spectroscopy mapping
Mathematical model for biomolecular quantification using surface-enhanced Raman spectroscopy based signal intensity distributions
Publication: 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
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Method of Manufacturing A Porous Polymer Component Involving Use of A Dissolvable, Sacrificial Material
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Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

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

Microcontainers improve oral bioavailability of furosemide
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Micromechanical Fast Quasi-Static Detection of α and β Relaxations with Nanograms of Polymer
Publication: Research - peer-review › Journal article – Annual report year: 2015

Novel Nanostructured Electrodes Obtained by Pyrolysis of Composite Polymeric Materials
Publication: Research - peer-review › Journal article – Annual report year: 2015

Novel Readout Method for Molecular Diagnostic Assays Based on Optical Measurements of Magnetic Nanobead Dynamics
Publication: Research - peer-review › Journal article – Annual report year: 2015

On-line monitoring of 2D and 3D cell cultures: electrode configurations for impedance based sensors
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015
Parallelized system for biopolymer degradation studies through automated microresonator measurement in liquid flow
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

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

Plasmon resonances of Ag capped Si nanopillars fabricated using mask-less lithography.
Wu, K., Rindzevicius, T., Schmidt, M. S., Mogensen, K. B., Xiao, S. & Boisen, A. 2015 In : Optics Express. 23, 10, p. 12965-12978
Publication: Research - peer-review › Journal article – Annual report year: 2015

Polymeric microcontainers improve oral bioavailability of a poorly soluble drug
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Pyrolysed carbon microelectrode in a self-aligning electrochemical batch system
Hemanth, S., Amato, L., Caviglia, C., Emméus, J. & Keller, S. S. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Quantification of NS1 dengue biomarker in serum via optomagnetic nanocluster detection
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2014

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

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

SERS sensors for DVD platform
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2015
Silver Capped Silicon Nanopillars as Surface Enhanced Raman Spectroscopy Substrates
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Simple electrodynamic transduction scheme for micromechanical resonators
Publication: Research - peer-review › Poster – Annual report year: 2015

Simulation and Measurement of Angle Resolved Reflectance from Black Si Surfaces
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Simulation and Measurement of Angle Resolved Reflectance from Black Si Surfaces
Davidsen, R. S., Wu, K., Schmidt, M. S., Boisen, A. & Hansen, O. 2015
Publication: Research - peer-review › Poster – Annual report year: 2015

Spray drying of cubosomes for oral vaccine delivery
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Stabilisation of amorphous furosemide increases the oral drug bioavailability in rats
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

The copper binding properties of metformin - QCM-D, XPS and nanobead agglomeration
Quan, X., Uddin, R., Heiskanen, A., Parmvi, M., Nilson, K., Donolato, M., Hansen, M. F., Rena, G. & Boisen, A. 2015 In : Chemical Communications. 51, 97, p. 17313-17316
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

Wafer-Scale Leaning Silver Nanopillars for Molecular Detection at Ultra-Low Concentrations
Publication: 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
Donolato, M., Bosco, F., Hansen, M. F., Boisen, A. & Hwu, E. T. 31 Dec 2014
Publication: Research › Patent – Annual report year: 2015

A Centrifugal Microfluidic Platform for Biomarker Detection in Blood using BluRay Technology
Publication: Research › peer-review › Poster – Annual report year: 2014
Evidence of surface loss as ubiquitous limiting damping mechanism in SiN micro- and nanomechanical resonators
Publication: Research - peer-review › Journal article – Annual report year: 2014

Fabrication and Process Optimization of Wafer-scale Silicon Nanopillar SERS Substates
Wu, K., Schmidt, M. S., Rindzevicius, T. & Boisen, A. 2014
Publication: Research - peer-review › Poster – Annual report year: 2014

Fabrication of drug-laden poly(vinylpyrrolidone)(PVP) microgels by UV-photolithography and supercritical impregnation
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Gold Nanoparticle Doped Polymer Materials for Micro- and Nanofabrication
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

High Excitation Efficiency of Channel Plasmon Polaritons in Tailored, UV-Lithography-Defined V-Grooves
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Hollow micro string based calorimeter device
Khan, F., Schmid, S., Boisen, A. & Larsen, T. 2014
Publication: Research › Patent – Annual report year: 2014

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

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

Impedance spectroscopic monitoring of the effect of phytochemical compounds on wound healing in microfluidics
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

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

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

Improving spectral resolution of SERS using moving AG nanopillar substrate
Publication: Research - peer-review › Poster – Annual report year: 2014
Improving the robustness of Surface Enhanced Raman Spectroscopy based sensors by Bayesian Non-negative Matrix Factorization
Publication: 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)
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2014

Interface losses in multimaterial resonators
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

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

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

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

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

Loading of microcontainers for oral drug delivery
Publication: Research › Ph.D. thesis – Annual report year: 2014

Low-Power Photothermal Probing of Single Plasmonic Nanostructures with Nanomechanical String Resonators
Publication: Research - peer-review › Journal article – Annual report year: 2014
Mediated amperometric monitoring of DT-diaphorase induction in cancer cells: tool for screening phytotherapeutical drugs

Micro and nano structures for biosensing and oral drug delivery

Microcontainers, an innovative oral drug delivery system for poorly soluble drugs

Microcontainers as an oral drug delivery system.

Microcontainers as an oral drug delivery system.

Microcontainers as oral drug delivery systems for small molecules and proteins

Microcontainers for Unidirectional Release in the Upper Intestine

Microfabricated containers for oral drug delivery

Microfabricated containers for pH-triggered drug release in the upper intestine

Micromechanical photothermal analyser of microfluidic samples.

Micromechanical resonators as a tool for polymer characterization

Micromechanical String Resonators: Analytical Tool for Thermal Characterization of Polymers
Molecular diagnostics based on magnetic nanobead clustering dynamics monitored using a Blu-ray optomagnetic readout system

Publication: Research - peer-review › Poster – Annual report year: 2014

Nanomprinted DWDM laser arrays on indium phosphide substrates

Publication: Research - peer-review › Journal article – Annual report year: 2014

Nanomechanical identification of liquid reagents in a microfluidic channel

Publication: Research - peer-review › Journal article – Annual report year: 2014

Nanomechanical IR Spectroscopy for the fast analysis of picogram samples of engineered nanomaterials

Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Non-labeling multiplex surface enhanced Raman scattering (SERS) detection of volatile organic compounds (VOCs)

Publication: Research - peer-review › Journal article – Annual report year: 2014

Optical detection of radio waves through a nanomechanical transducer.

Publication: Research - peer-review › Journal article – Annual report year: 2014

Optical, Nanomechanical and Electrochemical Sensing on a DVD Disc

Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2014

Optimizing Signal-to-Noise Ratio of SERS Ag Capped SI Nanopillars

Wu, K., Schmidt, M. S., Rindzevicius, T. & Boisen, A. 2014
Publication: Research - peer-review › Poster – Annual report year: 2014

Photothermal probing of plasmonic hotspots with nanomechanical resonator

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Photothermal resonance

Publication: Research › Patent – Annual report year: 2014

Physical characterization of photocrosslinked poly(vinyl pyrrrolidone) (PVP) hydrogels for drug delivery

Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Polymer drug matrix loading in micro-containers using hot punching

Compact MEMS/NEMS characterization platform using a DVD optical pick-up unit with optical imaging function

Computational and experimental studies of the interaction between single-walled carbon nanotubes and folic acid

Conducting pyrolysed carbon scaffold for tissue engineering

Detection of Airborne Nanoparticles with Mechanical Systems

Development of Electrochemical Cantilever Sensors for DNA Applications

DNA hybridization sensing for cytogenetic analysis

Drug-polymer filled micro-containers for oral delivery loaded using supercritical CO₂ aided-impregnation

Enhanced Light–Matter Interactions in Graphene-Covered Gold Nanovoid Arrays

Fabrication of antireflective SiC surface using plasma etching with self-assembled nanopattern
Ou, Y., Argyraki, A. & Ou, H. 2013

Ferromagnetic shadow mask for spray coating of polymer patterns

Fluidic automation of nitrate and nitrite bioassays in whole blood by dissolvable-film based centrifugo-pneumatic actuation
Graphene-on-dielectric micromembrane for optoelectromechanical hybrid devices
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

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

Imaging interferometry to measure surface rotation field
Travaillot, T., Dohn, S., Boisen, A. & Amiot, F. 2013 In : Applied Optics. 52, 18, p. 4360-4369
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

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

Luminescence enhancement of fluorescent SiC via surface nanostructuring produced by 2-step cost effective method
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2013

Mapping the Complex Morphology of Cell Interactions with Nanowire Substrates Using FIB-SEM
Publication: Research - peer-review › Journal article – Annual report year: 2013

Micro fabrication of biodegradable polymer drug delivery devices
Publication: Research › Ph.D. thesis – Annual report year: 2013

Micromechanical PDGF recognition via lab-on-a-disc aptasensor arrays
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Mikrosensorer skal hjælpe skadestuer med prioritering af patienter
Brøgger, A. L. & Frøhling, K. B. 2013 In : Dansk kemi. 94, 9, p. 12-14
Publication: Research › Journal article – Annual report year: 2014
Nanomechanical recognition of prognostic biomarker suPAR with DVD-ROM optical technology
Publication: 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
Publication: Research - peer-review › Journal article – Annual report year: 2014

Nonlinearity in nanomechanical cantilevers
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Optical detection of radio waves through a nanomechanical transducer
Publication: Research - peer-review › Journal article – Annual report year: 2013

Optical readout of coupling between a nanomembrane and an LC circuit at room temperature
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Photochemical Synthesis of the Bioconjugate Folic Acid-Gold Nanoparticles
León, J. J. C., Bertel, L., Páez-Mozo, E. & Martínez, F. 2013 In : Nanomaterials and Nanotechnology. 3
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

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

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

Plasma etching on large-area mono-, multi- and quasi-mono crystalline silicon
Plasma texturing on large-area industrial grade CZ silicon solar cells  
Davidsen, R. S., Nordseth, Ø., Schmidt, M. S., Boisen, A. & Hansen, O. 2013
Publication: Research › Poster – Annual report year: 2013

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

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

Pyrolyzed Photoresist Electrodes for Integration in Microfluidic Chips for Transmitter Detection from Biological Cells  
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Resonant fiber based aerosol particle sensor and method  
Boisen, A. & Schmid, S. 2013
Publication: Research › Patent – Annual report year: 2013

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

Sensitive determination of the Young's modulus of thin films by polymeric microcantilevers  
Publication: 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.  
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

SU-8 etching in inductively coupled oxygen plasma  
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Tailoring channeled plasmon polaritons in metallic V-grooves  
Temperature Stable Mass Sensors
Publication: Research › Ph.D. thesis – Annual report year: 2013

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

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

Using Experience From Explosives Detection in Development of Biosensors Based On Nanomechanical Responses
Boisen, A. 2013 In : Electrochemical Society. Meeting Abstracts (Online). MA2013-02
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Centrifugally driven microfluidic disc for detection of chromosomal translocations
Publication: Research - peer-review › Journal article – Annual report year: 2012

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

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

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

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

Graphene on silicon nitride micromembranes for optoelectromechanical devices
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012

Inkjet printing as a novel drug loading technique of micro-containers
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012
Investigation of cleaning and regeneration methods for reliable construction of DNA cantilever biosensors
Publication: Research - peer-review › Paper – Annual report year: 2012

Investigations by Raman Microscopy if Spatial Confinement of Amorphous Indomethacin Can Lead to Increased Stability
Publication: Research - peer-review › Paper – Annual report year: 2012

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

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

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

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

Schmidt, M. S., Hübner, J. & Boisen, A. 2012 In : Advanced Materials. 24, 10
Publication: 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
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

Process Optimization for Spray Coating of Poly (vinyl pyrrolidone)
Bose, S., Keller, S. S., Boisen, A. & Almdal, K. 2012
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

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

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

Statistical analysis of DNT detection using chemically functionalized microcantilever arrays
Publication: Research - peer-review › Journal article – Annual report year: 2012
Test system and method
Boisen, A. & Bosco, F. 2012
Publication: Research › Patent – Annual report year: 2012

Ultra-low power hydrogen sensing based on a palladium-coated nanomechanical beam resonator
Publication: Research - peer-review › Journal article – Annual report year: 2012

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

Dynamic in situ chromosome immobilisation and DNA extraction using localized poly(N-isopropylacrylamide) phase transition
Publication: Research - peer-review › Journal article – Annual report year: 2011

SERS substrate and a method of providing a SERS substrate
Schmidt, M. S., Boisen, A. & Hübnner, J. 2011
Publication: Research › Patent – Annual report year: 2012

Spatial confinement of amorphous indomethacin increases stability
Publication: Research - peer-review › Poster – Annual report year: 2011

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

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

Windowless microfluidic platform based on capillary burst valves for high intensity x-ray measurements
Publication: Research - peer-review › Journal article – Annual report year: 2009

Projects:

VILLUM Experiment: Micro/Nanoscale 3D Printing: Hacking a Blu-ray Player
Hwu, E. T. 01/12/2018 → 31/12/2019
Project

Biological Sample Preparation for Electron Microscopy
Project

Microcontainers for Oral Vaccine Delivery
Nielsen, L. H. 01/07/2014 → 30/06/2017
Project
Micro punching of micro containers for oral drug delivery
Petersen, R. S., Mahshid, R. & Hansen, H. N.
21/01/2013 → 13/11/2014
Project

Activities:

Nanomechanical Infrared Spectroscopy with completely free-standing pyrolytic carbon string resonators for paracetamol detection
Nguyen, Q. L. (Speaker), Larsen, P. E. (Other), Boisen, A. (Other), Keller, S. S. (Other)
24 Sep 2018 → 27 Sep 2018
Activity: Talks and presentations › Conference presentations

Distribution and quantitative analyses of poorly water soluble drugs loaded by supercritical CO2 impregnation in microcontainers with different sizes
Mazzoni, C. (Guest lecturer)
22 Jul 2018 → 24 Jul 2018
Activity: Talks and presentations › Conference presentations

Pyrolytic carbon for MEMS string resonators
Nguyen, Q. L. (Speaker), Larsen, P. E. (Other), Boisen, A. (Other), Keller, S. S. (Invited speaker)
11 Jun 2018
Activity: Talks and presentations › Conference presentations

Nanotechnology
Hwu, E. T. (Guest lecturer)
7 Jun 2018
Activity: Talks and presentations › Talks and presentations in private or public companies and organisations

3D printed system for testing intestinal drug transport
Jepsen, M. L. (Other), Nielsen, L. H. (Other), Almdal, K. (Other), Boisen, A. (Other), Dufva, M. (Other)
21 Mar 2018
Activity: Talks and presentations › Conference presentations

Loading of poorly soluble drugs by supercritical CO2 impregnation into microcontainers for oral drug delivery
Mazzoni, C. (Other), Antalaki, A. (Other), Jacobsen, R. D. (Other), Mortensen, J. (Other), Tentor, F. (Other), Slipets, R. (Other), Ilchenko, O. (Other), Keller, S. S. (Other), Nielsen, L. H. (Other), Boisen, A. (Other)
19 Mar 2018 → 22 Mar 2018
Activity: Talks and presentations › Conference presentations

An automated flow-injection enzyme-linked immunosorbent assay for the detection of Zearalenone
Jongjit Jantra (Other), Zor, K. (Other), Martin Hedström (Other), Bo Mattiasson (Other)
7 Feb 2018 → 9 Feb 2018
Activity: Talks and presentations › Conference presentations

3D printed system for based on hydrogels for drug transport
Jepsen, M. L. (Other), Nielsen, L. H. (Other), Almdal, K. (Other), Boisen, A. (Other), Dufva, M. (Other)
29 Jan 2018
Activity: Talks and presentations › Conference presentations

Loading of poorly soluble drugs by supercritical CO2 impregnation into microcontainers for oral drug delivery
Mazzoni, C. (Speaker), Antalaki, A. (Other), Jacobsen, R. D. (Other), Mortensen, J. (Other), Tentor, F. (Other), Slipets, R. (Other), Ilchenko, O. (Other), Keller, S. S. (Other), Nielsen, L. H. (Other), Boisen, A. (Other)
29 Jan 2018 → 31 Jan 2018
Activity: Talks and presentations › Conference presentations
Microcontainers for oral vaccine delivery
Nielsen, L. H. (Guest lecturer)
29 Jan 2018 → 31 Jan 2018
Activity: Talks and presentations › Conference presentations

26th International Meshing Roundtable
Jensen, K. E. (Organizer)
21 Sep 2017
Activity: Attending an event › Participating in or organising a conference

A nanofiltration technique for analyte extraction from complex matrix and surface enhanced Raman spectroscopy based sensing
Durucan, O. (Guest lecturer), Rindzevicius, T. (Other), Schmidt, M. S. (Other), Ilchenko, O. (Other), Boisen, A. (Other)
20 Sep 2017
Activity: Talks and presentations › Conference presentations

Photothermal probing of metallic nanoparticles on nanomechanical string resonators to study plasmonic heating effects
Padmanabhan Rangacharya, V. (Speaker)
20 Sep 2017
Activity: Talks and presentations › Conference presentations

Microcontainers for oral vaccine delivery
Nielsen, L. H. (Guest lecturer)
18 Sep 2017 → 22 Sep 2017
Activity: Talks and presentations › Conference presentations

Electrospraying Chitosan Particles for Oral Vaccine Delivery
Nielsen, L. H. (Guest lecturer)
16 Jul 2017 → 19 Jul 2017
Activity: Talks and presentations › Conference presentations

Microcontainers as an Oral Drug Delivery System
Nielsen, L. H. (Guest lecturer)
16 Jul 2017 → 19 Jul 2017
Activity: Talks and presentations › Conference presentations

1st Summer School on Complex Fluid-Flows in Microfluidics
Jensen, K. E. (Speaker)
14 Jul 2017
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

Structural aspects of hydrates – insight into phase transformations using nanomechanical sensors
Peter Ouma Okeyo (Guest lecturer), Larsen, P. E. (Guest lecturer), Ilchenko, O. (Guest lecturer), Rindzevicius, T. (Guest lecturer), Roman Slipets (Guest lecturer), Boisen, A. (Guest lecturer), Thomas Rades (Guest lecturer), Jukka Rantanen (Guest lecturer)
28 Jun 2017 → 30 Jun 2017
Activity: Talks and presentations › Conference presentations

Integration of Nanopillar SERS Substrates in a Microfluidic Platform for Analyte Separation and Quantitative Sensing
Durucan, O. (Guest lecturer), Morelli, L. (Guest lecturer), Wu, K. (Guest lecturer), Viehrig, M. (Guest lecturer), Ilchenko, O. (Guest lecturer), Zor, K. (Guest lecturer), Matteucci, M. (Guest lecturer), Alstrøm, T. S. (Guest lecturer), Rindzevicius, T. (Guest lecturer), Schmidt, M. S. (Guest lecturer), Boisen, A. (Guest lecturer)
11 Jun 2017 → 17 Jun 2017
Activity: Talks and presentations › Conference presentations
41st International conference on Micro and Nano Engineering
Sanger, K. (Participant)
21 Sep 2015 → 24 Sep 2015
Activity: Attending an event › Participating in or organising a conference

Fabrication and loading of biopolymer microcontainers for oral drug delivery using hot punching
Petersen, R. S. (Speaker)
19 May 2015
Activity: Talks and presentations › Conference presentations

Microfabrication of containers for oral drug delivery
Petersen, R. S. (Invited speaker)
10 Apr 2015
Activity: Talks and presentations › Conference presentations

Detection of small organics in water: The MUSE project
Frøhling, K. B. (Speaker)
29 Jan 2015
Activity: Talks and presentations › Conference presentations

Microfabrication of containers for oral drug delivery
Petersen, R. S. (Invited speaker)
1 Oct 2014
Activity: Talks and presentations › Conference presentations

Pyrolysed 3D-carbon scaffolds induce spontaneous differentiation of human neural stem cells and facilitate real-time dopamine detection
Amato, L. (Lecturer)
14 Sep 2014
Activity: Talks and presentations › Conference presentations

4th International Workshop on Analytical Miniaturization and NANOtechnologies
Bose-Goswami, S. (Participant)
23 Jun 2014 → 24 Jun 2014
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

15th International Conference on Electroanalysis
Quan, X. (Participant)
11 Jun 2014 → 15 Jun 2014
Activity: Attending an event › Participating in or organising a conference

11th Annual International Workshop on Nanomechanical Sensing
Quan, X. (Participant)
30 Apr 2014 → 2 May 2014
Activity: Attending an event › Participating in or organising a conference

11th Annual International Workshop on Nanomechanical Sensing
Bose-Goswami, S. (Participant)
30 Apr 2014 → 2 May 2014
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

9th Annual Workshop of Biofilms – Research Center for Biointerfaces
Antunes, P. S. M. (Participant)
4 Oct 2013
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.
222th Electrochemical Society meeting
Quan, X. (Participant)
7 Oct 2012 → 12 Oct 2012
Activity: Attending an event › Participating in or organising a conference

9th International Nanomechanical Sensing Workshop
Quan, X. (Participant)
7 Jun 2012
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

15th International Conference on Miniaturized Systems for Chemistry and Life Sciences
Quan, X. (Participant)
2 Oct 2011 → 6 Oct 2011
Activity: Attending an event › Participating in or organising a conference

2nd International Conference on Nanotechnology
Quan, X. (Participant)
27 Jul 2011 → 29 Jul 2011
Activity: Attending an event › Participating in or organising a conference

36th International Conference on Micro- and Nano-Engineering
Quan, X. (Participant)
19 Sep 2010 → 22 Sep 2010
Activity: Attending an event › Participating in or organising a conference