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

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Center for Intelligent Drug Delivery and Sensing Using Microcontainers and Nanomechanics
Department of Micro- and Nanotechnology - Professor
Nanoprobes

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
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
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 Used 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
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
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
Abid, Z., Petersen, R. S., Boisen, A. & Keller, S. S. 2018
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
Wu, K., Li, T., Schmidt, M. S., Rindzevicius, T., Ndoni, S. & Boisen, A. 2018
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

Pyrolytic carbon for MEMS string resonators
Nguyen, Q. L., Larsen, P. E., Bishnoi, S., Boisen, A. & Keller, S. S. 2018
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2018

Real-time electrochemical detection of paracetamol interaction with intestinal tissue
Thoppe Rajendran, S., Ruzgas, T., Boisen, A. & Zor, K. 2018
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
Durucan, O., Schmidt, M. S., Rindzevicius, T. & Boisen, A. 9 Nov 2017 G01N 35/ 00 A I9 Nov 2017 2 May 2016 EP20160167956
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
Serioli, L., Morelli, L., Matteucci, M., Zor, K. & Boisen, A. 2017
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

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

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
IR spectroscopy with pyrolytic carbon string resonator as a tool for particle detection
Research output: Research - peer-review › Conference abstract for conference – 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
Petersen, R. S., Keller, S. S. & Boisen, A. 2017 In : Macromolecular Materials & Engineering. 302, 3, 6 p., 1600366
Research output: Research - peer-review › Journal article – Annual report year: 2016

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

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

Microcontainers as an oral delivery system for spray dried cubosomes containing ovalbumin
Nielsen, L. H., Rades, T., Boyd, B. & Boisen, A. 2017 In : European Journal of Pharmaceutics and Biopharmaceutics. 118
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
Durucan, O., Rindzevicius, T., Schmidt, M. S., Matteucci, M. & Boisen, A. 2017 In : ACS Sensors. 2, 10, p. 1400-1404
Research output: 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
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 Molecularly 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
Abid, Z., Petersen, R. S., Boisen, A. & Keller, S. S. 2017
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
Uddin, R., Quan, X., Donolato, M., Burger, R. & Boisen, A. 2016 1 p.
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
Burger, R., Amato, L. & Boisen, A. 2016 In : Biosensors and Bioelectronics. 76, p. 54-67
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
Kurek, M., Carnoy, M., Boisen, A. & Schmid, S. 2016 1 p.
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 supematant using gold-capped silicon nanopillar substrates
Research output: Research - peer-review › Conference abstract for conference – Annual report year: 2016

Surface Enhanced Raman Spectroscopy detection of p-coumaric acid from cell supematant using gold-capped silicon nanopillar substrates
Research output: Research - peer-review › Poster – 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

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

Triple co-culture cell model as an in vitro model for oral particulate vaccine systems
Research output: Research - peer-review › Conference abstract for conference – 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


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
DTU's Sustain Conference 2015. Lyngby: Technical University of Denmark (DTU), 1 p. Q-5
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Microcontainers improve oral bioavailability of furosemide
Research output: Research - peer-review › Conference abstract for conference – 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.
Wu, K., Rindzevicius, T., Schmidt, M. S., Mogensen, K. B., Xiao, S. & Boisen, A. 2015 In : Optics Express. 23, 10, p. 12965-12978
Research output: Research - peer-review › Journal article – Annual report year: 2015

Polymeric microcontainers 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

**Simulation and Measurement of Angle Resolved Reflectance from Black Si Surfaces**
Davidsen, R. S., Wu, K., Schmidt, M. S., Boisen, A. & Hansen, O. 2015 1 p.

Research output: Research - peer-review › Poster – 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 › Journal article – Annual report year: 2015

**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 › Poster – Annual report year: 2014

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

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

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

Characterization of the time-evolving bending profile of micro-cantilevers
Research output: Research › 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 › Conference abstract in proceedings – Annual report year: 2014

Development of an electrochemical cantilever platform
Research output: Research › 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 › Conference abstract in proceedings – Annual report year: 2015

Fabrication and Process Optimization of Wafer-scale Silicon Nanopillar SERS Substates
Research output: Research › 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 » Article in proceedings – 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.
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.
Khan Muhammad, F., Schmid, S., Boisen, A., Kim, S. & Thundat, T. 2014 B01L3/00; G01B11/24; G01N21/03; G01N33/54331 Dec 2014 26 Jun 2014EP20130173787
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 › 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 › Poster – Annual report year: 2014

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

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

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

Optimizing Signal-to-Noise Ratio of SERS Ag Capped SI Nanopillars
Research output: Research › Poster – Annual report year: 2014

Photothermal probing of plasmonic hotspots with nanomechanical resonator
Research output: Research › Article in proceedings – Annual report year: 2014

Photothermal Resonance
Research output: Research › Patent – 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
Travaillot, T., Dohn, S., Boisen, A. & Amiot, F. 2013 In : Applied Optics. 52, 18, p. 4360-4369
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

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Nucleic acid reactions investigated by cantilever-based sensors
Marie, R., Boisen, A. & Christensen, C. B. V. May 2004
Research output: Research › Ph.D. thesis – Annual report year: 2004

Organic and Biological Molecular Layers on Functionalised Sensor Surfaces Studies with Atomic Force Microscopy
Holmberg, M., Kyhle, A. & Boisen, A. Apr 2004
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 nanocantielver 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),
Wackerbarth, H., Grubb, M., Marie, R. C. W., Boisen, A. & Ulstrup, J. 2004
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
Forsén, E. S., Carlberg, P., Montelius, L. & Boisen, A. 2004 In : Microelectronic Engineering. 73–74, p. 491–495
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 Anchored Oligonucleotide.
Wackerbarth, H., Grubb, M., Marie, R. C. W., Boisen, A. & Ulstrup, J. 2004
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

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

A cantilever-based sensor for thermal cycling in buffer solution
Marie, R. C. W., Thaysen, J., Christensen, C. B. V. & Boisen, A. 2003 In : Microelectronic Engineering. 67, 8, p. 893-898
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
Dry release of suspended nanostructures

Electron transfer behaviour of biological macromolecules towards the single-molecule level

Flexible structure with integrated sensor/actuator

Hybridisation of short DNA molecules investigated with in situ atomic force microscopy

Lift-off by local laser lithography for stamp manufacturing

Monolithic integration of mass sensing nano-cantilevers with CMOS circuitry

Nanobubble trouble on gold surfaces

Nanocantilever based mass sensor integrated with CMOS circuitry

Nanopatternning by AFM nano-oxidation of thin aluminum layers as a tool for the prototyping of nanoelectromechanical systems

NEMS prototyping using laser lithography

Optimised cantilever biosensor with piezo resistive read-out
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
Marie, R. C. W., Jensenius, H., Thaysen, J., Christensen, C. B. V. & Boisen, A. 2002 In : Ultramicroscopy. 91, 1-4, p. 29-36
Research output: Research - peer-review › Journal article – Annual report year: 2002

AFM characterization of a resonating nanocantilever

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

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

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
Petersen, C. L., Hansen, T. M., Bøggild, P., Boisen, A., Hansen, O., Hassenkam, T. & Grey, F. 2002 In : Sensors and actuators a-physical. 96, 1, p. 53-58
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 circuitry
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
AFM probe with piezoresistive read-out and highly symmetrical wheatstone bridge arrangement.
Thaysen, J., Boisen, A., Hansen, O. & Bouwstra, S. 1999 AFM probe with piezoresistive read-out and highly symmetrical wheatstone bridge arrangement. The Institute of Electrical Engineers of Japan, p. 1852-1855
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
Hansen, O. & Boisen, A. 1999 In : Nanotechnology. 10, 1, p. 51-60
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 - peer-review › Article in proceedings – Annual report year: 1998
AFM probes with directly fabricated tips
Research output: Research - peer-review › Journal article – Annual report year: 1996

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

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

Projects:

3D printing of micro-container for oral delivery of probiotics
Chang, T., Boisen, A., Hwu, E. T. & Nielsen, L. H.
Samfinansieret - Andet
01/09/2018 → 31/08/2021
Project: PhD

Evaluating microcontainers for oral delivery of probiotics
Christfort, J. F., Boisen, A., Nielsen, L. H. & Zor, K.
Samfinansieret - Andet
01/09/2018 → 31/08/2021
Project: PhD

Microcontainers for Oral Delivery of Probiotics
Kamguyan, K., Boisen, A., Nielsen, L. H. & Zor, K.
Fonde
15/06/2018 → 14/06/2021
Project: PhD

Microcontainers for oral drug delivery
Hansen, S. E.; Boisen, A. & Nielsen, L. H.
Samfinansieret - Andet
01/02/2018 → 31/01/2021
Project: PhD

Development of Highly sensitive raman spectroscopy system for monitoring of multicomponent drug mixtures in the PPM Concentration range
Slipets, R., Boisen, A., Ilchenko, O. & Rindzevicius, T.
Samfinansieret - Andet
01/11/2017 → 31/10/2020
Project: PhD

Optical Sensor Disc
Serioli, L., Boisen, A., Rindzevicius, T. & Zor, K.
Samfinansieret - Andet
01/10/2017 → 30/09/2020
Project: PhD

Sensors on disc
Thoppe Rajendran, S., Boisen, A., Rindzevicius, T. & Zor, K.
Fonde
01/05/2017 → 30/04/2020
Project: PhD
Fabrication of biodegradable microcontainers for oral drug delivery
Abid, Z., Keller, S. S., Boisen, A. & Petersen, R. S.
Grundforskningsfonden
01/03/2017 → 29/02/2020
Project: PhD

Drug transport in in vitro intestine models
Jepsen, M. L., Dufva, M., Boisen, A. & Nielsen, L. H.
Grundforskningsfonden
15/12/2016 → 14/12/2019
Project: PhD

Nanomechanical Sensors
Padmanabhan Rangacharya, V., Boisen, A., Larsen, P. E., Rindzevicius, T. & Wu, K.
Samfinansieret - Andet
01/10/2016 → 30/09/2019
Project: PhD

Nanoskala multi-punkts prober fabrikeret ved elektron-stråle litografii
Gammelgaard, L., Bøggild, P., Boisen, A., Petersen, P. R. E., Horch, S., Brugger, J. & Gravesen, P.
Offentlig finansiering
01/04/2004 → 28/09/2007
Project: PhD

Organiske og Biologiske molekullag på funktionelle sensor-overflader studeret med atomic force mikroskopi
Hansen, M. S., Boisen, A., Garnæs, J., Kyhle, A., Ulstrup, J., Pedersen, L. H. & Williams, P. M.
Erhvervsforskerordningen
01/12/2000 → 05/03/2004
Project: PhD

Mucoadhesive microcontainers for oral drug delivery
Mosgaard, M. D., Boisen, A., Andersen, A. J. & Müllertz, A.
Fonde
15/09/2016 → 17/08/2020
Project: PhD

Development of Surface-Enhanced Raman Scattering Sensors
Viehrig, M., Boisen, A., Rindzevicius, T. & Zor, K.
Fonde
01/09/2016 → 31/08/2019
Project: PhD

Additive Manufacturing and Characterization of Mini Devices for Oral Drug Delivery
Vaut, L., Boisen, A., Jensen, K. E. & Tosello, G.
Samfinansieret - Andet
01/03/2016 → 28/02/2019
Project: PhD

Miniaturization of food safety analysis
Zhai, D. S., Smidsgaard, J. & Boisen, A.
Institut stipendie (DTU)
15/03/2016 → 14/03/2019
Project: PhD

Loading of microcontainers for oral drug delivery
Mazzoni, C., Boisen, A. & Nielsen, L. H.
Samfinansieret - Andet
15/01/2016 → 14/01/2019
Project: PhD

**Carbon based micromechanical sensors**
Nguyen, Q. L., Keller, S. S., Boisen, A. & Schmid, S.
Eksternt finansieret virksomhed
15/12/2015 → 14/12/2018
Project: PhD

**Microcontainers for oral vaccine delivery**
von Halling Laier, C., Boisen, A., Nielsen, L. H., Rades, T., Larsen, N. B., Christensen, D. & Lavelle, E.
Samfinansieret - Andet
01/09/2015 → 31/08/2018
Project: PhD

**Chemical/Biological sensing using CMUTs**
Mølgaard, M. J. G., Thomsen, E. V., Jakobsen, M. H., Boisen, A., Dossi, E. & Virzonis, D.
Institut stipendie (DTU)
01/05/2015 → 21/06/2018
Project: PhD

**SERS based Sensing and Centrifugal Microfluidics**
Durucan, O., Boisen, A., Matteucci, M., Rindzevicius, T., Schmidt, M. S., Smidsgaard, J., Golcuk, K. & Hakonen, A.
Samfinansieret - Andet
15/01/2015 → 03/05/2018
Project: PhD

**Disc System for Cellular Studios**
Morelli, L., Boisen, A., Rindzevicius, T., Zor, K., Svendsen, W. E., Ducree, J. & Sandahl, M.
Anden EU-finansiering
01/12/2014 → 07/03/2018
Project: PhD

**Agglutination based Sensing and Centrifugal Microfluidics**
Samfinansieret - Andet
01/11/2014 → 07/02/2018
Project: PhD

**Electrochemical/Agglutination based Sensing and Centrifugal Microfluidics**
Sanger, K., Boisen, A., Heiskanen, A., Zor, K., Taboryski, R. J., Turner, A. P. F. & Zebgerle, R.
Anden EU-finansiering
01/09/2014 → 11/01/2018
Project: PhD

**Hollow Cantilever-like sensors on a rotating disc**
Kurek, M., Boisen, A., Burger, R., Schmid, S., Thomsen, E. V., Seonghwan, K. & Tamayo, J.
Anden EU-finansiering
01/02/2014 → 10/05/2017
Project: PhD

**Cantilever sensor on a rotating disc**
Samfinansieret - Andet
01/04/2014 → 23/08/2017
Project: PhD
Spm-probes
Boisen, A. & Bouwstra, S.
Erhvervsforskerordningen
01/04/1994 → …
Project: PhD

Packaging of integrated optical components
Erhvervsforskerordningen
01/09/1997 → 31/08/2001
Project: PhD

Investigation and realigation of a Mass Sensor with Nan ElectroMechanical System (NEMS)
Anden EU-finansiering
01/10/2002 → 30/03/2006
Project: PhD

Nanoresonators for high resolution mass detection
Davis, Z. J., Boisen, A., Hansen, O., Sigmund, O., Brand, O. & Brugger, J.
Anden EU-finansiering
01/02/2000 → 30/06/2003
Project: PhD

Packaging of Bioprobe Cantilevers
Johansson, A. C., Boisen, A., Geschke, O., Staufer, U. & Thundat, T. G.
Offentlig finansiering
01/03/2004 → 05/02/2007
Project: PhD

Nanoparticles and Health
Eksternt finansieret virksomhed
01/04/2010 → 15/06/2016
Project: PhD

Development of Mechanical Biosensor for Metabolomics
Quan, X., Boisen, A., Heiskanen, A., Tenje, M., Emnéus, J., Ruzgas, T. & Thundat, T. G.
Eksternt finansieret virksomhed
01/02/2010 → 26/11/2013
Project: PhD

Micro-scale temperature sensors for calorimetry and cantilever based sensing
Larsen, T., Boisen, A., Schmid, S., Svendsen, W. E., Finot, E. & Thundat, T. G.
Eksternt finansieret virksomhed
01/10/2009 → 18/12/2012
Project: PhD

Temperature Stable Mass Sensors
Khan, F., Boisen, A., Schmid, S., Okkels, F., Jeon, S. & Stemme, G.
Programbevilling
01/12/2009 → 21/02/2013
Project: PhD

Cantilever-based sensors for explosives detection
Bosco, F., Boisen, A., Kutter, J. P., Hegner, M. & Thundat, T. G.
Programbevilling
01/11/2008 → 16/01/2012
Project: PhD

Micro-calorimetric sensors for explosives detection
Olsen, J. K., Boisen, A., Hvilsted, S., Bouwstra, S. & P. Hernández-Rivera, S.
Forskningsrådsfinansiering
01/08/2008 → 28/09/2011
Project: PhD

Elektrokemi og in situ scanning tunnel mikroskopi af biologisk betydningsfulde overgangsmetalkomplekser
Hansen, A. G., Ulstrup, J., Boisen, A., Quaade, U. & Raiteri, R.
Forskningsrådsfinansiering
01/06/1999 → 14/03/2003
Project: PhD

Fabrication, characterization and implementation of cantilevers for biochemical sensing
Thaysen, J., Boisen, A., Bouwstra, S., Grey, F., Frans de Rooij, N., Brugger, J. & Sigmund, O.
Forskningsrådsfinansiering
01/01/1999 → 16/11/2001
Project: PhD

Molecular Dynamics Simulations of Proteins, Biomembrane Systems, and Interfaces
Jensenius, H., Boisen, A., Grey, F., Ulstrup, J. & Berger, R.
Forskningsrådsfinansiering
01/01/1999 → 30/08/2002
Project: PhD

Mikro-systemer til (bio-) kemisk analyse
Østergaard, S., Telleman, P., Boisen, A. & Søndergaard, I.
Mic-Finansieret-SU
01/09/1996 → 16/12/1999
Project: PhD

Fabrication of Polymeric Cantilevers with Integrated Optical Read-Out
DTU-lønnet stipendie
15/02/2004 → 28/06/2007
Project: PhD

Autonomous Diagnostic Array for Biomedical Applications
Keller, S. S., Boisen, A., Häfliger, D., Almdal, K., Despont, M. & Grutter, P. H.
Forskningsrådsfinansiering
01/05/2005 → 29/08/2008
Project: PhD

Activation of SU8 Polymer Cantilever Systems for the Detection of Methicillin-Resistant Staphylococcus aureus (MRSA)
DTU-lønnet stipendie
15/11/2005 → 22/04/2009
Project: PhD

Micromechanical Pathogen Sensor System
DTU-lønnet stipendie
01/10/2007 → 24/11/2010
Project: PhD
Investigation of Nano-resonators for Mass Detection
Dohn, S., Boisen, A., Hansen, O., Sigmund, O., Bouwstra, S. & Laegsgaard, E.
DTU-lønnet stipendie
01/09/2003 → 30/03/2007
Project: PhD

Design, fabrication and implementation of a highly versatile high resolution mass sensor
Grigorov, A. V., Boisen, A., Hansen, O., Berini, G. A. & Montelius, L.
DTU-lønnet stipendie
15/02/2003 → 06/09/2006
Project: PhD

Fabrication and Characterization of Nano-Resonators for Mass Detection
Forsén, E. S., Boisen, A., Andreani, P. & Tamayo, J.
DTU-lønnet stipendie
01/07/2002 → 23/01/2006
Project: PhD

Optiske bistabilitet i integreret optik
Sandberg, R. K., Boisen, A., Svendsen, W. E., Hansen, O., Berger, R. & Gomez, M.
DTU-lønnet stipendie
01/09/2001 → 29/08/2005
Project: PhD

Nucleic acid Reactions Investigated by Cantilever Based Sensors
Marie, R., Boisen, A., Christensen, C. B. V., Pedersen, L. H. & Gómez, L. M. L.
DTU-lønnet stipendie
01/01/2001 → 12/05/2004
Project: PhD

Cantilever-based sensors for surface stress measurements
Rasmussen, P. A., Boisen, A., Scheeper, P. R. & Vettiger, P.
DTU-lønnet stipendie
01/08/2000 → 10/02/2004
Project: PhD

Fabrication and characterization of drug delivery vehicles
Programbevilling
01/01/2010 → 18/04/2013
Project: PhD

3D nanolithography for self-aligned nano- and microstructures
Forskningsrådsfinansiering
01/02/2007 → 22/09/2010
Project: PhD

High Frequency Resonators for Liquid based Bio/Chemical Diagnostics and Monitoring Applications
Forskningsrådsfinansiering
01/02/2006 → 20/05/2009
Project: PhD

Electromechanical sensors on a rotating disc
Anden EU-finansiering
15/08/2013 → 10/05/2017
Project: PhD

SERS as tool for monitoring lung infections
Lauridsen, R. K., Boisen, A., Molin, S., Rindzevicius, T., Bohr, J., Gilchrist, F. J. & Turner, A. P. F.
Forskningsrådsfinansiering
01/11/2012 → 08/02/2017
Project: PhD

Surface chemistry for cantilever-like and SERS sensors for DVD-based platform
Frøhling, K. B., Jakobsen, M. H., Bache, M., Boisen, A., Rozlosnik, N., Engelsen, S. B. & Merkoçi, A.
Forskningsrådsfinansiering
15/08/2012 → 09/12/2015
Project: PhD

Understanding Optical Properties of nanopillar arrays
Wu, K., Boisen, A., Schmidt, M. S., Hübner, J., Dmitriev, A. & Duyne, R. P. V.
Forskningsrådsfinansiering
01/05/2013 → 17/08/2016
Project: PhD

Development of a micromechanical Photothermal Spectrometer
Larsen, P. E., Boisen, A., Thomsen, E. V., Thundat, T. G. & Wiegerink, R. J.
1/3 FUU, 1/3 inst 1/3 Andet
01/09/2012 → 16/03/2016
Project: PhD

Loading of micro-containers for oral drug delivery
Institut stipendie (DTU) Samf.
01/02/2011 → 14/05/2014
Project: PhD

Cantilever-like sensors for DVD Platform
1/3 FUU, 1/3 inst 1/3 Andet
01/08/2012 → 09/11/2015
Project: PhD

Fabrication of biopolymer micro-container for oral drug delivery
Petersen, R. S., Boisen, A., Keller, S. S., Taboryski, R. J., Lehr, C. & Worqull, M.
1/3 FUU, 1/3 inst 1/3 Andet
15/09/2012 → 09/12/2015
Project: PhD

Micro and Nanomechanical Sensors Realised in Functionalised Polymers
Lillemose, M., Boisen, A., Almdal, K., Berger, R. & Gomez, M.
Anden EU-finansiering
01/03/2005 → 29/08/2008
Project: PhD
nanostructuring of solar cell surfaces
Davidsen, R. S., Hansen, O., Boisen, A., Schmidt, M. S., Jørgensen, A. M., Balling, P. & Marstein, E. S.
Institut stipendie (DTU)
01/11/2012 → 15/06/2016
Project: PhD

Piezoresistivity for Microsystems
Richter, J., Thomsen, E. V., Christensen, C., Hansen, O., Boisen, A., Gravesen, P. & Paul, O.
DTU, Samfinansiering
01/01/2005 → 29/05/2008
Project: PhD

High-throughput Gene Expression profiling (HT GenExp) technology for assessing heterogeneity in human stem cells
Poulsen, C. E., Wolff, A., Dufva, M., Boisen, A., Ducree, J. & Hollfelder, F.
Institut stipendie (DTU)
15/08/2012 → 17/08/2016
Project: PhD

High frequency bulk resonators for bio/chemical diagnostics and monitoring applications
Institut stipendie (DTU)
01/10/2008 → 16/01/2012
Project: PhD

Development of cantilever sensors for ion Detetion
Fischer, L. M., Boisen, A., Tenje, M., Ulstrup, J., Grutter, P. H. & Raiteri, R.
Institut stipendie (DTU)
01/01/2008 → 23/02/2011
Project: PhD

Targeting Approaches to Oral Drug Delivery with Microcontainers
Tentor, F., Boisen, A., Almdal, K. & Bose-Goswami, S.
Samfinansieret - Andet
01/12/2015 → 30/11/2018
Project: PhD

Microcantilevers as biosensors
Boisen, A., Jensenius, H., Thaysen, J. & Hansen, A. G.
01/06/1998 → 01/01/2002
Project: Research

Nanocantilevers for mass detection
Boisen, A., Hansen, O., Kuhn, O. & Grey, F.
01/07/1999 → 01/03/2000
Project: Research

Nanolithography on aluminium thin films
Grey, F., Boisen, A., Birkelund, K., Hansen, O. & Kuhn, O.
01/06/1997 → 01/01/2000
Project: Research

AFM probes
Bouwstra, S., Boisen, A., Hansen, O., Johansen, L., Ginnerup, M. & Thaysen, J.
Ukendt
01/04/1994 → ...
Project: Research
Nanoresonators with Integrated circuitry for high sensitivity and high resolution mass detection
Boisen, A.
Forsk. EU - Rammeprogram
23/10/2001 → 30/09/2004
Project: Research

Polymeric cantilever for bio-chemical sensing
Boisen, A.
Forskningsrådene - STVF
13/01/2003 → 31/08/2006
Project: Research

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

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

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

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

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

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
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), Zör, 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

SERS combiner for high-speed and high-sensitive quantitative analysis
Ilchenko, O. (Guest lecturer), Rindzevicius, T. (Guest lecturer), Durucan, O. (Guest lecturer), Schmidt, M. S. (Guest lecturer), Roman Slipets (Other), Morelli, L. (Guest lecturer), Boisen, A. (Guest lecturer)
11 Jun 2017 → 17 Jun 2017
Activity: Talks and presentations › Conference presentations

Annual Conference on Commercialization of Micro and Nano Systems
Boisen, A. (Participant)
30 Aug 2009 → 4 Sep 2009
Activity: Attending an event › Participating in or organising a conference

Detection of multiple bacteria cells using cantilever based mass sensors
Boisen, A. (Speaker)
20 May 2009 → 22 May 2009
Activity: Talks and presentations › Conference presentations

Talk about "Micro and Nanomechanical sensors; new materials and read-out methods" presented at ICMEMS 2009
Boisen, A. (Speaker)
3 Jan 2009 → 5 Jan 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
Boisen, A. (Speaker)
29 Oct 2008
Activity: Talks and presentations › Conference presentations

Talk about "Nanomechanical Sensors" Presented at National Cheng Kung University
Boisen, A. (Speaker)
28 Oct 2008
Activity: Talks and presentations › Conference presentations

Talk about "Fabrication of Cantilevers by Nanoimprint Lithography" Presented at "International Workshop on Cantilever sensors"
Boisen, A. (Speaker)
19 May 2008 → 21 May 2008
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"
Boisen, A. (Speaker)
19 May 2008 → 21 May 2008
Activity: Talks and presentations › Conference presentations

Rapid Methods Europe 2008
Boisen, A. (Participant)
21 Jan 2008 → 23 Jan 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
Boisen, A. (Speaker)
6 Jan 2008 → 9 Jan 2008
Activity: Talks and presentations › Conference presentations

2008 3rd IEEE International Conference on Nano/Micro Engineered and Molecular Systems
Boisen, A. (Participant)
1 Jan 2008 → …
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".
Boisen, A. (Speaker)
1 Jan 2008 → …
Activity: Talks and presentations › Conference presentations

The 5th International Workshop on Nano Mechanical Sensing
Boisen, A. (Participant)
2008 → …
Activity: Attending an event › Participating in or organising a conference