Nano Bio Integrated Systems - DTU Orbit (17/02/2018)

Nano Bio Integrated Systems
Department of Micro- and Nanotechnology
Organisational unit: Section

Publications:

**ELECTROCHEMICAL DEVICE FOR DETECTION OF SELECTED QUORUM SENSING SIGNALS**
Publication: Research › Patent – Annual report year: 2017

**Concentration of nanoparticles and/or microparticles in flow conditions by dielectrophoresis**
Rozlosnik, N., Dimaki, M., Olsen, M. H. & Svendsen, W. E. 8 Sep 2017
Publication: Research › Patent – Annual report year: 2017

**Helbredstjek af dansk sundhedsteknologi: Sektorudviklingsrapport**
Publication: Commissioned › Report – Annual report year: 2017

**In-situ doped junctionless polysilicon nanowires field effect transistors for low-cost biosensors**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**System-Level Sensitivity Analysis of SiNW-bioFET-Based Biosensing Using Lockin Amplification**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Algal toxicity of platinum nanoparticles - Implications of NP aggregation, dissolution and shading**
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

**A new application of plant virus nanoparticles as drug delivery in breast cancer**
Publication: Research - peer-review › Journal article – Annual report year: 2015

**Aptasensor development for detection of virus in water**
Publication: Research › Ph.D. thesis – Annual report year: 2017

**Electrochemical sensing of biomarker for diagnostics of bacteria-specific infections**
Publication: Research - peer-review › Journal article – Annual report year: 2016

**Evolvable Smartphone-Based Platforms for Point-Of-Care In-Vitro Diagnostics Applications**
Publication: Research - peer-review › Journal article – Annual report year: 2016
Sub 100 nm particle upconcentration in flow using electrical forces
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

A compact microelectrode array chip with multiple measuring sites for electrochemical applications
Publication: Research - peer-review › Journal article – Annual report year: 2014

A flexible mobile-device biosensing instrumentation platform for point-of-care medical diagnostics applications
Publication: Research - peer-review › Poster – Annual report year: 2014

A flexible mobile-device biosensing instrumentation platform for point-of-care medical diagnostics applications
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

A novel single-step, multipoint calibration method for instrumented Lab-on-Chip systems
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Application of versatile electrochemical sensor in cell culturing
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

AquaVir- Portable Analyzer for Water Borne Infectious Viruses
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

A Semi-Closed Device for Chromosome Spreading for Cytogenetic Analysis
Publication: Research - peer-review › Journal article – Annual report year: 2014

Electrochemical detection of chromosome translocation
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Electrochemistry in a centrifugal microfluidic system: Towards a novel point-of-care technology platform
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Finger prick blood plasma separation using a standard lab equipment
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Multifunctional sensing membrane-based platform for tissue or cell culturing and monitoring
Publication: Research › Patent – Annual report year: 2014

Nanoscaled biological gated field effect transistors for cytogenetic analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

New approach of long-term modification of Topas® to acquire surface hydrophilicity for chromosome spreading
Publication: Research - peer-review › Journal article – Annual report year: 2014

Real-time multiparameter monitoring of cellular dynamics: an automated microfluidic electrochemical analysis platform
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Silicon as an anisotropic mechanical material: Deflection of thin crystalline plates
Publication: Research - peer-review › Journal article – Annual report year: 2014
Study of Paclitaxel-Treated HeLa Cells by Differential Electrical Impedance Flow Cytometry
Publication: Research - peer-review › Journal article – Annual report year: 2014

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

Synthesis of amphiphilic diblock copolymer for surface modification of Ethylene-Norbornene copolymers
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Versatile electrochemical sensor for tissue culturing and sample handling
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Versatile electrochemical sensor for cell culturing
Publication: Research - peer-review › Poster – Annual report year: 2014

Bioprocessing in Microreactors
Publication: Research - peer-review › Book chapter – Annual report year: 2014

Centrifugal microfluidic platform with real-time electrochemical detection
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2013

Combined Cell Culture-Biosensing Platform Using Vertically Aligned Patterned Peptide Nanofibers for Cellular Studies
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

Culturing of PC12 Cells, Neuronal Cells, Astrocytes Cultures and Brain Slices in an Open Microfluidic System
Al Atraktchi, F. A-Z., Bakmand, T., Rømer Sørensen, A. & Svendsen, W. E. 2013
Publication: Research - peer-review › Poster – Annual report year: 2013

Detection of cancer cells using a peptide nanotube–folic acid modified graphene electrode
Publication: Research - peer-review › Journal article – Annual report year: 2012

Dielectrophoretic manipulation and solubility of protein nanofibrils formed from crude crystallins
DNA hybridization sensing for cytogenetic analysis

Doped Overoxidized Polypyrrole Microelectrodes as Sensors for the Detection of Dopamine Released from Cell Populations

Exploring the properties and possibilities of self-assembling

Fabrication and characterization of PEDOT nanowires based on self-assembled peptide nanotube lithography

Microfluidic System for Long Term Culturing and Monitoring of Organotypic Brain Tissue and Cells

Microfluidic System for Long Term Culturing of Organotypic Brain Tissue

NanoKaryotyping: Application of Micro- and Nanotechnologies in Cytogenetics

Non-covalent conjugates of single-walled carbon nanotubes and folic acid for interaction with cells overexpressing folate receptors

Novel fabrication method of conductive polymer nanowires for sensor applications

Translating silicon nanowire BioFET sensor-technology to embedded point-of-care medical diagnostics

Translating silicon nanowire BioFET sensor-technology to embedded point-of-care medical diagnostics
Alignment and Use of Self-Assembled Peptide Nanotubes as Dry-Etching Mask
Publication: Research - peer-review › Journal article – Annual report year: 2012

Advanced microtechnologies for cytogenetic analysis
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

All-polymer microfluidic device for metaphase FISH on chip
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2012

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

Compact potentiostat for cellular electrochemical imaging with 54 parallel channels
Publication: Research - peer-review › Article 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

Fabrication of 3D nano/microelectrodes via two-photon-polymerization
Publication: Research - peer-review › Journal article – Annual report year: 2012

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

Fabrication of single vertically aligned carbon nanotubes for cellular electrochemistry
Publication: Research - peer-review › Poster – Annual report year: 2013

Label Free Chromosome Translocation Detection with Silicon nanowires
Publication: Research - peer-review › Poster – Annual report year: 2012

Lab-on-Chip Silicon nanowire biosensors, for biomedical applications
Publication: Research - peer-review › Poster – Annual report year: 2012

Lab-on-Chip Silicon nanowire biosensors, for biomedical applications
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2012
Micro device for multiple disease diagnostic and monitoring
Publication: Research - peer-review › Poster – Annual report year: 2012

Microfluidic System for Long Term Culturing of Organotypic Brain Tissue
Publication: Research - peer-review › Poster – Annual report year: 2012

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

Microtechnologies Enable Cytogenetics
Publication: Research - peer-review › Book chapter – Annual report year: 2013

Monitoring The Functionalization Of Single Walled Carbon Nanotubes With Chitosan And Folic Acid By Two Dimensional Diffusion Ordered NMR Spectroscopy
Publication: Research - peer-review › Poster – Annual report year: 2012

Multichannel Bipotentiostat Integrated With a Microfluidic Platform for Electrochemical Real-Time Monitoring of Cell Cultures
Publication: Research - peer-review › Journal article – Annual report year: 2012

Novel 3D microelectrodes and pipettes by wet and dry etching
Publication: Research - peer-review › Journal article – Annual report year: 2012

On-chip cell viability studies using label-free impedance detection
Publication: Research - peer-review › Poster – Annual report year: 2012

Rapid Fabrication of Silicon Nanowires Using Self-Assembled Diphenylalanine Peptide Nanostructures
Kwasny, D., Frehling, K. B. & Andersen, K. B. 2012
Publication: Research - peer-review › Poster – Annual report year: 2012

Reactive ion etching of polymer materials for an energy harvesting device
Publication: Research - peer-review › Journal article – Annual report year: 2012

Size matters
Castillo, J. 2012 5, Pan European Networks: Science
Publication: Communication › Newspaper article – Annual report year: 2012
Vertically aligned patterned peptide nanowires for cellulars studies
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

Activities:

Microfluidics Congress 2015
Dimaki, M. (Participant)
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

A Smart Mobile Lab-on-Chip-Based Medical Diagnostics System Architecture Designed For Evolvability
Patou, F. (Speaker)
27 Aug 2015
Activity: Talks and presentations › Conference presentations

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

3rd Symposium on Graphene and Carbon Nanotubes
Castillo, J. (Participant)
25 Jun 2012 → 26 Jun 2012
Activity: Attending an event › Participating in or organising a conference

Personalised Medicine
Castillo, J. (Participant)
18 Jun 2012
Activity: Attending an event › Participating in or organising a conference

III International Workshop on Analytical Miniaturization and NANOtechnologies
Castillo, J. (Participant)
11 Jun 2012 → 12 Jun 2012
Activity: Attending an event › Participating in or organising a conference

Peptide nanostructures as scaffold for a SERS-based DNA biosensor
Castillo, J. (Speaker)
15 May 2012 → 18 May 2012
Activity: Talks and presentations › Conference presentations

Self-assembled peptide nanostructures: A new alternative for the development of biosensors
Castillo, J. (Speaker)
15 May 2012 → 18 May 2012
Activity: Talks and presentations › Conference presentations

Low Cost and Fast Clean Room Fabrication Techniques using Peptide Nanotubes
Castillo, J. (Speaker)
11 Dec 2011 → 15 Dec 2011
Activity: Talks and presentations › Conference presentations

Self-assembled peptide nanowires as multifunctional sensing platform for cellular studies
Castillo, J. (Speaker)
11 Dec 2011 → 15 Dec 2011