



Monday, 19 September

13:00 **Workshop : Tut-A1-MoA**
Tutorial - Ubiquitous Sensing with Micro- and Nano-systems (A1) - 120min
 Venue - HP1 - 48 seats (room 04.226)
 Chaired by: Dr. Elena Losero and Dr. Hernan Furci

CMOS MEMS as Enabling Technology for Smart Systems Miniaturization
 » [Prof. Markus Graf](#)

Sensing Opportunities in Integrated Photonics
 » [Dr. Wouter J. Westerveld](#)

13:00 **Workshop : Tut-B1-MoA**
Tutorial - Atomic Layer Processing (B1) - 120min
 Venue - HP3 - 48 seats (room 04.228)
 Chaired by: Prof. Fred Roozeboom and Dr. Harm Knoop

Atomic Layer Deposition and Molecular Layer Deposition - Fundamentals, Conformality and In Situ Analytics
 » [Prof. Jolien Dendooven](#)

Selective-area deposition and bottom-up approaches
 » [Dr. Silvia Armini](#)

13:30 **Panel**
iMNEs Board Meeting - 90 min - UPON INVITATION
 Venue - HP4 - 48 seats (room 04.230)
 Chaired by: Prof. Cornelis Hagen and Prof. Urs Stauer

15:30 **Workshop : Tut-A2-MoA**
Tutorial - Ubiquitous Sensing with Micro- and Nano-systems (A2) - 120min
 Venue - HP1 - 48 seats (room 04.226)
 Chaired by: Dr. Hernan Furci and Dr. Elena Losero

Neural Interfaces and Sensing
 » [Prof. Maysam Chamanzar](#)

Sensing Opportunities with 2D Materials
 » [Prof. Max Lemme](#)

15:30 **Workshop : Tut-B2-MoA**
Tutorial - Atomic Layer Processing (B2) - 120min
 Venue - HP3 - 48 seats (room 04.228)
 Chaired by: Prof. Fred Roozeboom and Prof. Jolien Dendooven

Plasma Etching and Atomic Layer Etching
 » [Ms. Julie Bannister](#) , [Mrs. Angeliqe Raley](#) , Dr. Masanobu Honda , Mr. Hiromasa Mochiki

Industrial perspectives of atomic-scale processing technologies
 » [Dr. Harm Knoop](#)

16:15 **Panel**
iMNEs General Assembly - 75 min
 Venue - BMW6 - 147 seats (room 04.201)
 Chaired by: Prof. Urs Stauer and Prof. Cornelis Hagen

18:30 **General : DeHoorn-MoN**
Welcome Mixer @ De Hoorn - <https://www.dehoorn.eu/nl/feesten-events>
 Venue - De Hoorn, Leuven Harbour
 Chaired by: Dr. Jean-Francois de Marneffe and Prof. Michael Kraft and Prof. Jean-Paul Viricelle and Prof. Irene Taurino



Continued from **Monday, 19 September**

Get Together Party

» MNE-ES chairs 2022

Tuesday, 20 September

08:45

Keynote : OC-TuM

MNE-ES Opening Ceremony - 15min

Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
Chaired by: Prof. Michael Kraft and Dr. Jean-Francois de Marneffe and Prof. Jean-Paul Viricelle and Prof. Irene Taurino

Opening Ceremony

» Prof. Michael Kraft

09:00

Keynote : PS-A-TuM

Plenary Session A - 90min

Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
Chaired by: Dr. Zahid A K Durrani and Prof. Jean-Paul Viricelle

PLENARY - Quantum Computation - Spins Inside

» [Prof. Lieven Vandersypen](#)

PLENARY - Ultra-Low Power and Zero-Power Sensors: A Contribution towards Autonomous Sensor Systems

» [Prof. Christofer Hierold](#) , Dr. Cosmin Roman , Dr. Miro Haluska , Mr. Seoho Jung , Ms. Katrina Klösel , Mr. Ian Mihailovic

11:00

Oral : T2-A-TuM

Oral Track 2 - Session A - CMOS-MEMS - 75min

Venue - Groot Aula GA2 - 474 seats (room 04.14)
Chaired by: Dr. Cedric Huyghebaert and Dr. Wouter J. Westerveld

TRACK INVITED (REMOTE) - CMOS MEMS as the Platform Technology for More-than-Moore Applications

» [Prof. Weileun Fang](#)

Stress-configurable and suspended nanodevices for post-CMOS multifunctionality

» [Mr. Simon Böttger](#) , Mr. Martin Hartmann , Mr. Nipun Dahra , Dr. Eberhard Kaulfersch , Dr. Sascha Hermann

CMOS compatible laser-crystallization of amorphous silicon films for monolithic MEMS integration

» [Mr. Florian Fuchs](#) , Dr. Amit Kulkarni , Dr. Christian Vedder , Mr. Heiko Zuege , Mr. Jan Linger , Mr. Hans-Joachim Quenzer

11:00

Oral : T4-A-TuM

Oral Track 4 - Session A - Microneedles and drug delivery - 105min

Venue - Groot Aula GA3 - 392 seats (room 04.28)
Chaired by: Prof. Jean-Christophe Baret and Prof. Stefan Johansson

High aspect-ratio metal microneedles by additive micromanufacturing

» Dr. Mahdiah Shakoorioskooie , Dr. Patrik Schürch , [Mr. Edgar Hepp](#) , Dr. Wabe Koelmans

Evaluation of Intradermal Allergen Delivery with Coated Si Microneedles

» [Mrs. Stephanie Ingemann Bisgaard](#) , Dr. Long Quang Nguyen , Mr. Gerardo Garcia Zavaleta , Dr. Katrine Lindholm Bøgh , Prof. Stephan Sylvest Keller

A self-powered sampling patch enabled by innovative hollow microneedle arrays and a microfluidic pump

» [Mr. Lorenz Van Hileghem](#) , Dr. Shashwat Kushwaha , Dr. Francesco Dal Dosso , Dr. Agnese Piovesan , Prof. Bart Nicolai , Prof. Dominiek Reynaerts , Prof. Jeroen Lammertyn



Continued from **Tuesday, 20 September**

Slot-die coating as a versatile technique for microfabrication of buccal patches and oral drug delivery systems

» [Dr. Sriram Thoppe Rajendran](#), Mr. Marc Bernet Garcia, Ms. Shahana Bishnoi, Dr. Lukas Avilovas, Dr. Leticia Hosta-Rigau, Prof. Stephan Sylvest Keller

Chitosan thin film for piezoelectric-driven and ultrasound-controlled drug delivery

» [Ms. Gaia de Marzo](#), Mr. Danilo De Pascali, Dr. Virgilio Brunetti, Dr. Vincenzo Mariano Mastronardi, Ms. Federica Vergari, Dr. Filippo Pisano, Dr. Ferruccio Pisanello, Dr. Francesco Rizzi, Prof. Massimo De Vittorio

TRACK INVITED - Biological and Biomimetic Surfaces: How Plants Influence Droplet Bouncing and Splashing by Surface Design

» [Prof. Kerstin Koch](#), Mr. Axel Huth

11:00

Oral : T1-C-TuA

Oral Track 1 - Session A - Nano Imprint Lithography - 120min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: Prof. David Grosso and Silvia Armini

TRACK INVITED - Nanoimprint lithography: enabling future semiconductor manufacturing to be more energy efficient

» [Dr. Tetsuro Nakasugi](#)

Large-scale fabrication and characterization of uniform Si nanowire arrays for energy harvesting and storage applications

» [Prof. Erwin Peiner](#), [Dr. Jiushuai Xu](#), Mr. Andam Deatama Refino, Dr. Walter Knulst, Dr. Lauryna Siaudinyte, Dr. Richard Koops, Dr. Eleonora Cara, Dr. Luca Boarino, Mr. Jonathan Kottmeier, Prof. Andreas Dietzel, Dr. Peter Hinze, Dr. Thomas Weimann

From Visible Wavelengths to Near Infrared: Direct Nanoimprint Lithography of High Aspect Ratio, All-Inorganic Waveguides and Diffractive Optics

» Mr. Vincent Einck, Dr. Andrew McClung, Dr. Dae Eon Jung, Dr. Amir Arbabi, [Dr. James Watkins](#)

Wetting-Induced Interconnected Doubly Reentrant Microcavity Structures for Robust Liquid-Repellent Surfaces

» Mr. Su Hyun Choi, Prof. Seok Kim, Prof. Young Tae Cho, [Mr. SEUNGMIN OH](#)

Multilevel nanoimprint lithography in a 200 mm wafer for MEMS applications

» [Ms. Inês S. Garcia](#), Dr. Aritz Retolaza, Mr. Carlos Silva, Dr. Diogo E. Aguiam, Dr. Jorge Cabral, Dr. Rosana A. Dias, Dr. Patrícia Sousa

Direct NIL patterning of sol-gel based metal oxides: 200 mm wafer nano-patterning with Al₂O₃, Eu-ZrO₂, CaTiO₃, SiO₂ and TiO₂ with refractive index up to 2.8.

» [Prof. David Grosso](#)

Roll-to-Plate Nanoimprint Lithography as Etching Mask Creating Large Area Structured Surfaces

» Dr. Jan Matthijs ter Meulen, Dr. L. W. (Pim) Veldhuizen, [Ms. Danielle A. C. van der Heijden](#), Dr. Bram J. F. Titulaer

11:00

Oral : T3-A-TuM

Oral Track 3 - Session A - Sensors Part 1 - 90min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Dr. Reyhaneh Jannesari and Prof. Dieter P. Kern

TRACK KEYNOTE - High performance gas measurement systems based on microsensors

» [Prof. Andreas Schütze](#)

Metal-organic framework microcavity/capacitor dual-read-out gas sensor for detection of volatile organic compounds

» [Dr. Max Tietze](#), Dr. Aleksander Matavž, Ms. Margot Verstreken, Prof. Rob Ameloot



Continued from **Tuesday, 20 September**

Micromechanically assisted refractive index cavity sensor on an optical fiber tip

» Mr. Jeremiah Williams , [Prof. Hengky Chandralalim](#)

Multipass and resonator enhanced photoacoustic nitrogen dioxide sensing

» [Mr. Gabriel Rodriguez Gutierrez](#) , Mr. Vincent Kuczius , Mr. Alvaro Ortiz Perez , [Prof. Stefan Palzer](#)

12:30

Oral : IS-D1-WeA

Industrial Session D1 - Inspection, Characterization, measurements, sensors and actuators - 30min

Venue - BMW3 - 129 seats (room 04.216)

Chaired by: Dr. Frederik Ceysens and Dr. Nadezda Kuznetsova

MAD CITY LABS - Nanopositioning and Instrumentation: down to 5pm resolution

» [Mr. Ferdinando Ciceri](#)

QUANTUM DESIGN: A New Tool for Correlative Microscopy by Quantum Design

» [Dr. Christian Schwalb](#)

ATTOCUBE system AG - Nanoscale Analytics for quality control of micro- and nano-devices

» [Dr. Stefan Mastel](#)

MELEXIS

» [Dr. Stijn Reekmans](#)

13:00

Oral : T2-B-TuA

Oral Track 2 - Session B - Metrology - 105min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Dr. James Alexander Liddle and Prof. Laurent Francis

Analysis of Process Tolerances in DWL Grayscale Lithography for High-Precision 2.5D Pattern Transfer to Si via Reactive Ion Etching

» [Dr. Joao Cunha](#) , Ms. Inês S. Garcia , Ms. Joana Santos , Dr. Pedro González-Losada , Dr. José Fernandes , Mr. Carlos Silva , Dr. João Gaspar , Ms. Ana R. Cortez , Mr. Marcos Sampaio , Dr. Diogo E. Aguiam

Two Microscopes are better than One - A unique new Inspection tool for Micro/Nanostructures by combination of AFM and SEM

» Dr. Hajo Frerichs , Dr. Sebastian Seibert , Dr. Lukas Stühn , Mrs. Marion Wolff , [Dr. Christian Schwalb](#)

Optimized GaAs/AlGaAs Based Single-Electron Pumps for a Quantum Current Standard

» [Dr. Thomas Gerster](#) , Dr. Niels Ubbelohde , Dr. Thomas Weimann , Dr. Klaus Pierz , Dr. Hans Werner Schumacher , Dr. Frank Hohls

Dark-field optical fault detection for point-contact single electron transistors

» [Mr. Wenkun He](#) , Mr. Kai-Lin Chu , Dr. Faris Abualnaja , Dr. Mervyn E Jones , Dr. Zahid A K Durrani

Infrared correlation nanoscopy with unprecedented spectral coverage

» [Dr. Stefan Mastel](#) , Dr. Tobias Gokus , Dr. Andreas J. Huber

Measuring piezoelectric constant $e_{31,f}$ on unstructured films

» [Mr. JanWillem Burssens](#) , Ms. Linlin Wang , Dr. Appo van der Wiel , Prof. Michael Kraft

Characterization of nanoscale gratings by lab-based EUV spectrometry for investigations on stochastic roughness effects

» [Mr. Sven Glabisch](#) , Mr. Henning Heiming , Ms. Sophia Schröder , Dr. Sascha Brose , Dr. Serhiy Danylyuk , Dr. Jochen Stollenwerk , Prof. Carlo Holly

13:00

Oral : PESM-A-TuA

Oral - PESM- Session A - Advanced memory technologies - 90min

Venue - BMW5 - 129 seats (room 04.208)

Chaired by: Dr. Evangelos Gogolides and Dr. Christophe Cardinaud



Continued from **Tuesday, 20 September**

TRACK INVITED - Nanopillar process flows for sub-10nm magnetic tunnel junctions and optical access applications

» [Dr. Ricardo Sousa](#), Dr. Aurélien Olivier, Dr. Nicolas Perrissin, Dr. Steven Lequeux, Dr. Laurent Vila, Dr. Liliana Buda-Prejbeanu, Dr. Stephane Auffret, Dr. Lucian Prejbeanu, Dr. Bernard Dieny

Monitoring and Control of Scandium-Aluminum-Nitride trace metal contamination in a Plasma Etch Chamber

» [Dr. James Dekker](#), Ms. Oili Ylivaara, Dr. Heini Saloniemi, Dr. Tuomas Pensala

High-density scaling of InGaZnO using ALE

» [Dr. Shreya Kundu](#), Mr. Frederic Lazzarino

Patterning challenges of Ge-Sb-Te for Advanced Phase Change Memory

» [Ms. Christelle Boixaderas](#), Dr. Yann Canel, Mr. Benjamin Fontaine, Mr. Sebastien Lagrasta, Dr. Jérôme Dubois, Mr. Pascal Gouraud, Dr. Arnaud Rival, Mr. Yann Mazel, Dr. Eugénie Martinez, Dr. Nicolas Posseme

Surface reactions of CF₄/CHF₃/Ar plasma on Si and SiO₂ in a CCP reactor

» [Dr. Patrick Vanraes](#), Dr. Syam Parayil Venugopalan, Prof. Annemie Bogaerts

13:00

Oral : IS-A1-WeA

Industrial Session A1 - Nano/Micro Fabrication Methods and Processes - 30min

Venue - BMW3 - 129 seats (room 04.216)

Chaired by: Dr. Nadezda Kuznetsova and Dr. Frederik Ceysens

TESCAN: Next chapter in Nanoprototyping in the New Generation of FIBSEM Systems

» [Mr. Milos Hrabovsky](#), Dr. Tomáš Šamoril, Dr. Jiří Dluhoš, Dr. Miroslav Jurásek, Mrs. Alena Siudová

ZYVEX LABS - Atomically Precise Fabrication Technology for Solid-State Quantum Devices

» [Dr. James Owen](#), Mr. Robin Santini, Dr. Ehud Fuchs

SAL: Unfolding the future of MEMS-based technologies at Silicon Austria Labs

» [Dr. Annalisa De Pastina](#), Dr. Sarah Risquez, Dr. Nikolai Andrianov, Dr. Anton Lagosh, Dr. Yanfen Zhai, Dr. Mohssen Moridi

ABSENT-SKIP - AMCOSS GmbH - systems and components for microsystems and semiconductor technologies

» [Mr. Uwe Mueller](#)

scia Systems - Ion Beam & Plasma Processing Solutions

» Ms. Manuela Lötsch, Ms. Mandy Eckert, [Mr. Karl Gündel](#)

13:00

Oral : IS-B1-WeA

Industrial Session B1 - Lithography - 30min

Venue - BMW4 - 105 seats (room 04.212)

Chaired by: Dr. sohail faizan shaikh

UPNANO: High-resolution 3D (bio) printing systems based on 2-Photon Polymerization

» [Mrs. Denise Hirner](#)

BEAMFOX: Proximity effect correction made simple

» [Mr. Lasse Frølich](#)

HEIDELBERG INSTRUMENTS - The Power of Direct-Write Lithography

» [Mr. Wolfgang Meixner](#)

NANOSCRIBE: An overview of sub-micron and high speed 3D printing

» [Mr. Alexander Legant](#)



Continued from Tuesday, 20 September

13:30

Oral : T3-B-TuA**Oral Track 3 - Session B - Optics & photonics Part 1 - 90min**

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Prof. Jan Genoe and Prof. Hengky Chandrahali

Metastable Atomic Layer Deposition: Synthesis of Plasmonic-based Broadband Absorber» [Dr. Mario Ziegler](#) , Mr. Valentin Ripka , Mr. Pengfei Cheng , Ms. Kanchan Kc , Mr. Hanjörg Wagner , [Dr. Uwe Hübner](#) , Dr. Dong Wang , Prof. Peter Schaaf**Strong confinement effect in nanospaces: A powerful low band gap photocatalyst**» [Dr. Sajjad Husain Mir](#) , Dr. Brian Jennings , [Prof. Parvaneh Mokarian-Tabari](#)**Fabrication of pedestal high-contrast grating for biosensing applications**» Mr. Leonid Yu Beliaev , Mr. Peter Groth Stounbjerg , Mr. Giovanni Finco , [Dr. Ada-Ioana Bunea](#) , Dr. Radu Malureanu , Dr. Lars Lindvold , Dr. Osamu Takayama , Dr. Peter E. Andersen , Dr. Andrei Lavrinenko**Photoacoustic-based, selective, and integrated multigas sensing**» Mr. Gabriel Rodriguez Gutierrez , Mr. Ziming Li , Mr. Justin Jerome Cott , Mr. Alvaro Ortiz Perez , [Prof. Stefan Palzer](#)**Plasmon-Enhanced photoluminescence detection of analytes on Si/metal nanostructures fabricated by metal assisted chemical etching.**» [Mr. IOANNIS KOCHYLAS](#) , Dr. Anastasios Dimitriou , Dr. Lampros Patsiouras , Ms. Maria-Athina Apostolaki , Dr. Anastasia Kanioura , Dr. Panagiota Petrou , Dr. Nikos Papanikolaou , Prof. Vlassios Likodimos , Prof. Spiros Gardelis**Localized attachment of quantum dots to nanoantennas for high-efficiency hybrid quantum light sources**» Dr. Christian Schäfer , Ms. Annika Mildner , Dr. Julia Fulmes , Dr. Hamza Abudayyeh , Mr. Hao Hu , Dr. Anke Horneber , Dr. Regina Jäger , Mr. Christian Simo , Mr. Dror Liran , Mr. Boaz Lubotzky , Mr. Lars Lüder , Dr. Pradeep N. Perera , Dr. Florian Laible , Dr. Deirdre L. Olynick , Dr. Adam M. Schwartzberg , Dr. Alexander Weber-Bargioni , Dr. Stefano Cabrini , Prof. P. James Schuck , Prof. Alfred J. Meixner , Prof. Dieter P. Kern , Prof. Ronen Rapaport , [Prof. Monika Fleischer](#)

13:45

Oral : T4-B-TuA**Oral Track 4 - Session B - Processes 1 - 75min**

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Prof. Annemie Bogaerts and Prof. Yiyu Ou

TRACK INVITED - Non-Thermal Plasma Treatment for Cancer Immunotherapy» [Dr. Abraham Lin](#)**Solid state fluid transport and sensing based on printed and embedded cellulose-polymer composites: the next level of paper-based microfluidics**» [Dr. Wolfgang Hilber](#) , Prof. Bernhard Jakoby**Fabrication of film-based microfluidic devices using Roll-to-Roll Extrusion Coating (R2R-EC)**» [Dr. Jan Kafka](#) , [Dr. Nastasia Okulova](#) , Mr. Connor O'Sullivan , Ms. Pamela Sánchez , [Dr. Anja Haase](#) , Dr. Martin Smolka , Dr. Christian Wolf , Dr. Andreas Flanschger , Dr. Ingo Katzmayer , Dr. Max Sonnleitner , Dr. Christoph Stöver , Dr. Janine Brommert , Dr. Maciej Skolimowski , Dr. Alvaro Conde , Dr. George Tsekenis , Dr. Mirko Lohse , Dr. Manuel Thesen , Dr. Florent Deliane , Dr. Nerea Briz Iceta , Dr. Goran Bijelic , Dr. Clarisa Salado , Dr. Isbaal Ramos , Dr. Jörg Nestler**Development of a fully automatic low-cost spray coater for the fabrication of a PDMS master stamp for cell traction force measurements**» [Ms. Franziska Leitner](#) , Mr. Manuel Humpeler , Dr. Stephan Kasemann , Dr. Volha Matylitskaya , Ms. Julia Eckert , Prof. Thomas Schmidt , Dr. Stefan Partel



Continued from Tuesday, 20 September

15:00

Oral : PESM-B-TuA**Oral - PESM-Session B - III-V semiconductor materials - 105min**

Venue - BMW5 - 129 seats (room 04.208)

Chaired by: Dr. Tillocher Thomas and Dr. Thierry Chevolleau

Development of low-damage plasma process using remote plasma source for the gate opening step in the AlGaIn/GaN MIS HEMT integration» [Mr. Oleh FESIENKO](#), Dr. Camille Petit-Etienne, Prof. Maxime Darnon, Dr. Ali Soltani, Prof. Hassan Maher, Prof. Erwine Pargon**Gate-first high-k/metal gate FinFET etch process for advanced DRAM peripheral transistors**» [Dr. Emmanuel Dupuy](#), Dr. Elena Capogreco, Dr. Eugenio Dentoni Litta, Dr. Zheng Tao, Dr. Farid Sebai, Dr. Alessio Spessot, Dr. Naoto Horiguchi**Chemical and electrical impact of the hard masks used during GaN plasma etching for AlGaIn/GaN-based HEMT applications**» [Mr. Maxime Pezeril](#), Dr. Sarah Boubenia, Mr. Simon Ruel, Dr. Patricia Pimenta-Barros, Dr. Bassem Salem, Dr. Nicolas Posseme**TRACK INVITED - Challenges in III-V Material Etching for state-of-the-art Light Emitting Diodes**» [Dr. Markus Heyne](#)**Plasma etching of III-V materials for phototransducers fabrication**» Mr. Benjamin Breton, Dr. Thomas Bidaud, Dr. Mathieu De Lafontaine, Prof. Simon Fafard, Mr. Denis Masson, Prof. Gwenaëlle Hamon, Prof. Erwine Pargon, Dr. Camille Petit-Etienne, [Prof. Maxime Darnon](#)**Dry Etching of III-V Layers for Monolithic Optical Device Fabrication on Si**» [Dr. Alexey Milenin](#), Mr. Didit Yudistira, Mr. Yannick De Koninck, Dr. Bernardette Kunert, Dr. Peter Verheyen, Dr. Joris Van Campenhout, Dr. Marianna Pantouvaki, Mr. BT Chan, Dr. Marina Baryshnikova

15:30

Oral : T4-C-TuA**Oral Track 4 - Session C - Droplets - 60min**

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Dr. Florenta Costache and Dr. Péter Fürjes

TRACK KEYNOTE - Microfluidics for the physical assembly of life-like microsystems» [Prof. Jean-Christophe Baret](#)**High throughput electrochemical detection of nanoliter droplets content**» [Ms. Eline Thomas](#), Dr. Wim Van Roy, Dr. Olivier Henry, Dr. Karolien Jans, Prof. Liesbet Lagae

15:30

Oral : T3-C-TuA**Oral Track 3 - Session C - Sensors Part 2 - 90min**

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Dr. Max Tietze and Prof. Andreas Schütze

TRACK INVITED - Electronic noses based on nanostructured carbon for breathomics» [Dr. Sonia Freddi](#)**Highly sensitive ammonia microsensor based on copper bromide-impregnated mesoporous thin film for chronic kidney disease monitoring: proof of concept**» [Ms. Lisa Weber](#), Dr. Virginie MARTINI, Prof. David GROSSO, Prof. Stéphane BURTEY, Prof. Marc BENDAHAN**Application of Cucurbit[n]urils Immobilization in Chemosensor Microarrays and Molecular Electronics**» [Ms. Chunting Zhong](#), Dr. Michael Hirtz, Dr. Frank Biedermann, Prof. Pascal Jonkheijm, Prof. Christian Nijhuis, Mr. Changming Hu, Dr. Saurabh Soni, Mr. Fuad Alami

Continued from **Tuesday, 20 September**

Addressing the Debye length challenge for specific and label-free biological sensing with field-effect transistors

» Ms. I.M. Bhattacharyya , Dr. Izhar Ron , Mr. Ankit Chauhan , Dr. Evgeny Pikhay , Mr. Doron Greental , Mr. Niv Mizrahi , Prof. Yakov Roizin , [Dr. Gil Shalev](#)

Wearable self-powered capacitive pressure sensor based on triboelectric effect via a combination of porous PDMS/CNTs and poly(ethylene oxide)

» [Mr. Changwoo Cho](#) , Prof. Je Hoon Oh

15:45

Oral : T2-C-TuA

Oral Track 2 - Session C - Nanomaterials - 45min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Christofer Hierold and Prof. Francesc Perez-Murano

Suspended nanochannels made by nanoimprint and gas phase deposition

» [Mr. Manuel Müller](#) , Mr. Jeremy Teuber , Mr. Rukan Nasri , Prof. Francesc Torres Canals , Prof. Núria Barniol Beumala , Dr. Jordi Llobet Sixto , Dr. Xavier Borrisé , Prof. Francesc Perez-Murano , Dr. Irene Fernandez-Cuesta

Focused electron beam induced deposited nanowires as scanning probes for conductive atomic force microscopy

» Ms. Ewelina Gacka , [Mr. Bartosz Pruchnik](#) , Mr. Dominik Badura , Mr. Piotr Kunicki , Prof. Ivo Rangelow , Prof. Teodor Gotszalk

Inverted Pyramidal Superhydrophobic Surfaces with Embedded Silicide Nanostructures

» [Mr. Seved Mehran Mirmohammadi](#) , Dr. Sasha Hoshian , Dr. Ville Jokinen , Prof. Sami Franssila

16:30

Poster : T1-P1-TuA

Poster Track 1 - Session 1

Venue - Hall O&N II (room 04.298) - BOARDS TRACK 1

Chaired by: Dr. Silvia Armini

Highly spatially-resolved chemical metrology on virgin EUV resist and latent resist images - Poster T1-P1-TuA-001

» Dr. Maarten van Es , Dr. Selman Tamer , Dr. Elin Bloem , Dr. Laurent Fillinger , Mrs. Elfi van Zeijl , Dr. Klára Maturová , Dr. Jacques van der Donck , Dr. Rob Willekers , Mr. Adam Chuang , [Dr. Diederik Maas](#)

Stability of Monolayer WS2 in Various Storage Environments - Poster T1-P1-TuA-002

» [Mr. Pieter-Jan Wyndaele](#) , [Mr. Robbe Slaets](#) , Dr. Jean-Francois de Marneffe , Dr. Thierry Conard , Dr. Benjamin Groven , Prof. Stefan De Gendt

Investigations of laser defocusing for 2-photon-based micro-structuring with a direct laser write setup for high-precision, large-area positioning - Poster T1-P1-TuA-003

» [Mrs. Annika-Verena Haecker](#) , Prof. Eberhard Manske , Ms. Jaqueline Stauffenberg

The method of focus drift management using DBF mark - Poster T1-P1-TuA-004

» [Mr. BUMSUK KIM](#) , Prof. Jae Wook Jeon

Fabrication of a 3D nano-and micro-scale patterned fibrous membrane utilizing a novel sharply inclined array collector - Poster T1-P1-TuA-005

» [Ms. SUNHEE CHO](#) , Dr. Se Rim Jang , Prof. Cheol Sang Kim

Resistless Field Emission Scanning Probe Lithography on Molybdenum Ditelluride - Poster T1-P1-TuA-006

» [Mr. Christoph Reuter](#) , Prof. Steffen Strehle

Influence of a glass-ceramic microstructure on a dry chemical etching process - Poster T1-P1-TuA-007

» [Dr. Ulrike Brokmann](#) , Mrs. Luisa Marie Altendorf , Dr. Christoph Weigel , Prof. Edda Rädlein

Air Shield System to Reduce Contamination in Photolithography Equipment - Poster T1-P1-TuA-008

» [Mr. Juyoung Jung](#) , Mr. Jin-Hwan Hong , Prof. Byoungdeog Choi



Continued from **Tuesday, 20 September**

Reduction of Gate-Induced Drain Leakage using dual gate oxide in Buried-Gate FETs - Poster T1-P1-TuA-009

» [Mr. youmin kim](#), Mr. Donghbin kim, Prof. Byoungdeog Choi

High-energy ball-milling as an alternative approach to synthesise lanthanum-oxycarbonate powders for CO2 microsensors - Poster T1-P1-TuA-010

» [Dr. Sandrine Bernardini](#), Ms. ORPHILUS Kerlande, Dr. Carine Chassigneux, Dr. Marie-Vanessa Coulet

Parameter optimization of maskless UV lithography process for SU-8-derived 3D carbon microelectrodes - Poster T1-P1-TuA-011

» [Mr. Mohammad Ramezannezhad](#), Dr. Babak Rezaei, Prof. Henri Jansen, Prof. Stephan Sylvest Keller

How the liquid metal alloy sources allow a versatile use for the ion beam nanofabrication - Poster T1-P1-TuA-013

» [Dr. Jérémie Silvent](#), Dr. Arnaud Houel, Mrs. Imene Guellil, Dr. Anne Delobbe, Dr. Luc Favre, Dr. Isabelle Berbizier

APAM 2D p-n junctions with atomic-precision alignment - Poster T1-P1-TuA-012

» [Dr. James Owen](#), Mr. Robin Santini, Dr. Ehud Fuchs

Effects of simple flame treatment duration on the hydrophobicity and bacterial anti-adhesion properties of robust PDMS microstructure - Poster T1-P1-TuA-014

» [Dr. Nithi Atthi](#), Dr. Pawasuth Saengdee, Ms. Suphichaya Radomyos, Ms. Ploymanee Chaisawat, Ms. Waisaree Joksathit, Dr. Sutichai Smart, Dr. Sutee Chutipaijit, Dr. Nongluck Hounkhamhang

God save the beam (from inaccurate placement) - Poster T1-P1-TuA-015

» Dr. Andrew Madison, Dr. Craig Copeland, Dr. Ronald Dixon, Dr. Robert Ilic, [Dr. James Liddle](#), Dr. Samuel Stavis

Effect of f-rGO ink concentration on single and multiple pass inkjet-printed structures - Resistance and temperature dependence study - Poster T1-P1-TuA-016

» Mr. Apostolos Apostolakis, Mr. Aggelos Pilatis, Dr. Dimitris Barmpakos, Prof. Vassiliki Belessi, [Prof. Dimitrios-Nikolaos Pagonis](#), Prof. Grigoris Kaltsas

Optimization of maskless lithography with different epoxy-based photoresists - Poster T1-P1-TuA-017

» [Mr. Nicolai Støvring](#), Prof. Jenny Emnéus, Dr. Arto Heiskanen, Prof. Stephan Sylvest Keller

Tailoring a nanometer-scale fabrication process for silicon photonics - Poster T1-P1-TuA-018

» [Mr. Marcus Albrechtsen](#), Mr. Ali Nawaz Babar, Dr. Babak Vosoughi Lahijani, Dr. Evgeniy Shkondin, Dr. Guillermo Arregui, Mr. Jesper Sand, Prof. Henri Jansen, Dr. Søren Stobbe

Proposal of smart process design system for nanoimprint - Poster T1-P1-TuA-019

» [Prof. Yoshihiko Hirai](#), Mr. Ryuhei Yamanura, Mr. Yusei Kunitou, Prof. Masaaki Yasuda

Nanolithography on Silicon by FIB using Au and Ge as ion beam species - Poster T1-P1-TuA-020

» [Dr. Jordi Llobet](#), Mr. Alessandro Cian, Dr. Alvise Bagolini, Mr. David Bricio, Dr. Xavier Borrisé, Mr. Damiano Giubertoni, Prof. Francesc Perez-Murano

Facile nanocasting of dielectric metasurfaces for visible metahologram - Poster T1-P1-TuA-021

» [Mr. Wonjoong Kim](#), Ms. Hojung Choi, Mr. Chanwoong Park, Mr. Dongwoo Chae, Mr. Hangyu Lim, Dr. Ick-chan Ju, Prof. Heon Lee

Automated overlay with the NanoFrazor: Nanodevice fabrication through thermal scanning probe lithography and direct laser sublimation - Poster T1-P1-TuA-022

» Dr. Jana Chaaban, Dr. Nicholas Hendricks, Mr. Jonas Vergés, [Dr. Emine Cagin](#)



Continued from Tuesday, 20 September

Simulating the thermal oxidation of silicon (Si) at variable temperatures - Poster T1-P1-TuA-023

» [Mr. André Kosak](#), Prof. Stefan Tappertzhofen

Novel Optical Engine Enabling Roll-to-plate/Roll-to-roll UV-Nanoimprint Lithography - Poster T1-P1-TuA-024

» [Mrs. Ritika Petersen](#), Mr. Jan Stensborg, Mr. Leif Yde, Mr. Karlis Petersons

Towards greener nano-imprint process - Poster T1-P1-TuA-025

» [Ms. Clothilde Pera](#), [Mr. Jean-Baptiste Doucet](#), Mr. Franck Carcenac, Dr. Emmanuelle Daran

Influence of a glass-ceramic microstructure on a dry chemical etching process - Poster T1-P1-TuA-026

» [Dr. Ulrike Brokmann](#), Mrs. Luisa Marie Altendorf, Dr. Christoph Weigel, Prof. Edda Rädlein

A novel method to enable Black silicon to absorb in the SWIR range for spectral imagers applications - Poster T1-P1-TuA-027

» [Ms. Nadine Gerges](#), Dr. Silvere Gousset, Dr. Camille Petit-Etienne, Dr. Jumana Boussey, Dr. Yann Ferrec, Dr. Cécile Gourgon

Effect of Humidity on Electrochemically Formed Patterns on Cr Thin-film - Poster T1-P1-TuA-028

» [Mr. Swapnendu Ghosh](#), Mr. Debjit Sarkar, Dr. Santanu Talukder

Direct imprinting of polymerizable ionic liquids by UV and T-NIL - Poster T1-P1-TuA-029

» [Dr. Natalia Turek](#), Dr. Andrea Szepecht, Dr. Adrian Zajac, Mrs. Paulina Hinc, Dr. Marcin Smiglak, Dr. Katarzyna Komorowska, Mrs. Zuzanna Olek

Precisely tilted, sub-nm pitch of large-area gratings with Electron beam lithography - Poster T1-P1-TuA-030

» [Dr. Janine Wilbers](#), Mr. Daniel Ritter, Mr. Bas Ketelaars, Dr. Vikram Passi, Dr. Hans Romijn, Mr. Michiel Visser, Dr. Frank Nouvertne, Dr. Christiaan Zonneville

Statistically enhanced etching process of Zinc Oxide thin films - Poster T1-P1-TuA-031

» [Mr. David Lynes](#), Prof. Hengky Chandralalim, Mr. Justin Brown, Mr. Karanvir Singh, Mr. Kyle Bodily, Dr. Kevin Leedy

A sacrificial metal-based lift-off process for improved polymer self-adhesion in polyimide neural probes - Poster T1-P1-TuA-032

» [Mr. Marko Bakula](#), [Dr. Frederik Ceyskens](#), Prof. Bob Puers, Prof. Michael Kraft

Making use of experimentally determined contrast curves and other information in preparation of e-beam lithography (EBL) for lift-off processes - Poster T1-P1-TuA-033

» [Dr. Silvia Diewald](#), Prof. Gernot Goll

Solid state dewetting and nano imprint lithography: a low-cost technique to pattern large surface area - Poster T1-P1-TuA-034

» [Ms. Chiara Barri](#), Mr. Luca Fagiani, Dr. Andrea Cattoni, Dr. Monica Bollani

Fabrication and characterization of a 3D printed PIFA on flexible glasses - Poster T1-P1-TuA-035

» [Ms. Ilaria Marasco](#), Mr. Giovanni Niro, Dr. Sean Garner, Dr. Francesco Rizzi, Prof. Antonella D'Orazio, Prof. Marco Grande, Prof. Massimo De Vittorio

Germanium nanopillars growth by confined gold ion implantation by FIB - Poster T1-P1-TuA-036

» [Mr. Alessandro Cian](#), Mr. Damiano Giubertoni, Mr. Jiri Fiala, Dr. Jiri Babocký, Mr. Milos Hrabovsky, Dr. Lorenza Ferrario

16:30

Poster : T4-P1-TuA

Poster Track 4 - Session 1

Venue - Hall O&N I (room 04.496) - BOARDS TRACK 4

Characterisation tissue elasticity by MEMS force sensors - Poster T4-P1-TuA-001

» [Dr. Péter Fűrjes](#), Mr. János Márk Bozorádi, Dr. János Radó, Dr. Péter Földesy, Prof. István Bársony, Dr. Csaba Dücső, Dr. Géza Papp, Mr. Attila Nagy



Continued from **Tuesday, 20 September**

Sorting Performance Evaluation at Different Indirect Deflective Flows in a Microfluidic Particle Sorter - Poster T4-P1-TuA-002

» [Mr. Hakan Merdan](#) , Prof. Andrew Holmes

Flexible neuromorphic-neurotransmitter biohybrid interface - Poster T4-P1-TuA-003

» [Ms. Setareh Kazemzadeh](#) , Dr. Yoeri van de Burgt

Biomimetic multi-stimuli responsive flexible sensors and actuators - Poster T4-P1-TuA-004

» [Mr. QUAN SUN](#) , Dr. Cédric AYELA , Dr. Damien Thuau

Smart Silica Nanoparticles for Controlled Protein Release in Microfluidic Chips - Poster T4-P1-TuA-005

» Mr. Kutay Sagdic , Ms. Mina Askun , [Dr. Yeseren Saylan](#) , Dr. Bengi Özgün Öztürk , [Dr. Fatih Inci](#)

MEMS post-processing of CMOS MPW die for active dense neural probes - Poster T4-P1-TuA-006

» [Dr. João Ribeiro](#) , Dr. Gabor Orban , Mr. Alberto Perna , Dr. Matteo Vincenzi , Dr. Fabio Boi , Dr. Giannicola Angotzi , Dr. Luca Berdondini

Isolating and Detecting Extracellular Vesicles on Microfluidic Chips and Metamaterial Sensors - Poster T4-P1-TuA-007

» Ms. Esmâ Derin , Ms. Eylul Gulsen Yilmaz , [Dr. Fatih Inci](#)

Microfluidic Electroosmotic Pump Integrated into PMMA Using an Ion Exchanging Membrane - Poster T4-P1-TuA-008

» [Mr. Rafael Ecker](#) , Mr. Andreas Fuchsluger , [Mrs. Tina Mitteramskogler](#) , Prof. Bernhard Jakoby

A Microfluidic Device incorporating DNAzyme and Nanoparticles for Heavy Metal Ion Detection - Poster T4-P1-TuA-009

» Dr. Myrto-Kyriaki Filippidou , Mr. Aris Kanaris , Dr. Sotiris Ntouskas , Dr. Evangelos Aslanidis , Dr. Evangelos Skotadis , Dr. Dimitra Tsounidi , Ms. Annita Rapesi , [Dr. George Tsekenis](#) , Prof. Dimitris Tsoukalas , Dr. Angeliki Tserepi , Dr. Stavros Chatzandroulis

Synthesis of plasmonic gold nanoparticles on soft materials for biomedical applications - Poster T4-P1-TuA-010

» Dr. Federica Granata , Mrs. Noemi Pirillo , Prof. Luigi Bruno , Dr. Valentina Onesto , Dr. Maria Laura Coluccio , Dr. Mario Iodice , Dr. Giuseppe Coppola , [Prof. Francesco Gentile](#)

Electrogenetics: Covalently Linking Electrodes to Genetically Defined Neurons - Poster T4-P1-TuA-011

» [Mr. Isaac Weaver](#) , Mr. Austin Li , Ms. Brenda Shields , Ms. Aryana Yousefzadeh , Mr. Shaun Sze Xian Lim , Ms. Victoria Goldenshtein , Dr. Purav Vagadia , Dr. Gary Schiltz , Dr. Michael Tadross

A novel microstructured implantable window for in-vivo non-linear excitation imaging. - Poster T4-P1-TuA-012

» [Prof. giuseppe chirico](#) , Dr. Claudio Conci , [Prof. laura sironi](#) , Dr. Emanuela Jacchetti , Mr. Davide Panzeri , Dr. Donato Inverso , Dr. Rebeca Martinez Vazquez , Prof. Giulio Nicola Cerullo , Dr. Roberto Osellame , Prof. Maddalena Collini , Dr. Maria Farsari , Dr. Elmira Kabouraki , Prof. Manuela Raimondi

Interactions between a microfluidic droplet and a membrane: Towards addressable droplet arrays for microfluidic assays - Poster T4-P1-TuA-013

» [Prof. Tristan Gilet](#) , Dr. Stéphanie van Loo

Use of experimental sensors for discrimination of artificial breath mixtures in a lung cancer screening context - Poster T4-P1-TuA-014

» [Mr. Justin Martin](#) , Prof. Marc Debliquy , Mr. Yifan Luo , Dr. LAHEM DRISS , Dr. Ahmadou Ly , Prof. Anne-Claude Romain

In-situ optical characterization of droplet generation in two-phase microfluidic system - Poster T4-P1-TuA-015

» [Dr. Péter Fürjes](#) , Dr. Szomor Szombor , Mr. János Márk Bozorádi , Dr. Barbara Beiler , Dr. Zoltan Szabo

Submicron-scale site-selective biofunctionalization using advanced wafer-level photolithography - Poster T4-P1-TuA-016

» [Dr. Seungkyu Ha](#) , Dr. Rita Vos , Dr. Koen Martens , Dr. Tim Stakenborg , Prof. Pol Van Dorpe , Dr. Karolien Jans



Continued from **Tuesday, 20 September**

Receptor layer design for label-free evaluation of insulin and insulin analogues' interactions with insulin receptor - Poster T4-P1-TuA-017

» [Ms. Ewa Kobylska](#) , Dr. Marcin Drozd , Ms. Małgorzata Żmieńko , Prof. Michał Chudy

Fabrication and evaluation of enzyme loaded microgel shapes as carriers for intravenous drug delivery - Poster T4-P1-TuA-019

» [Ms. Shahana Bishnoi](#) , Dr. Michelle Maria Theresia Jansman , Mr. Jiantao Chen , Prof. Stephan Sylvest Keller , Dr. Leticia Hosta-Rigau

Acoustofluidic Particle Focusing in PMMA Chips Using Low Frequency Lateral Resonances of The Piezoelectric Plate Transducer - Poster T4-P1-TuA-020

» [Mr. Andreas Fuchsluger](#) , Mr. Rafael Ecker , Dr. Annalisa De Pastina , Dr. Norbert Cselyuska , Dr. Mohssen Moridi , Prof. Bernhard Jakoby

Design Enabled Perforated Silicon Platform for Futuristic Healthcare Devices - Poster T4-P1-TuA-021

» [Dr. sohail faizan shaikh](#) , Mr. Aaron Delahanty , Dr. Dries Braeken , Prof. Liesbet Lagae , Dr. Alexandru Andrei , Dr. Hasan MD Mahmud ul Hasan

Improving the Seal of a Passive Non-Invasive Gastric Microbiota Sampling Device - Poster T4-P1-TuA-022

» [Mr. Gafaru Moro](#) , Dr. Nikolaj Mandsberg , Dr. Mahdi Ghavami , Prof. Anja Boisen

Microfabrication and characterization of fiber-based optrode - Poster T4-P1-TuA-023

» [Mrs. Jelena Petrovic](#) , Dr. Fred Lange , Dr. Dennis Hohlfeld

Ultra-thin high-density flexible probes - Poster T4-P1-TuA-024

» [Mr. Rik van Daal](#) , Dr. Jeroen Bolk , Dr. Arno Aarts , Prof. Fabian Kloosterman , Prof. Michael Kraft

Enhanced mesenchymal stem cell growth inside collagen-coated bone marrow-on-a-chip platforms - Poster T4-P1-TuA-025

» [Ms. Dionysia Kefallinou](#) , Ms. Maria Grigoriou , Dr. Dimitrios Boumpas , Dr. Evangelos Gogolides , Dr. Angeliki Tserepi

Ionic-liquid-assisted detection of Prostate Specific Antigen (PSA) using a microfluidic device - Poster T4-P1-TuA-026

» [Ms. Filipa Flora](#) , [Ms. Sofia Relvas](#) , Prof. Mara Freire , Dr. Francisca Silva , Dr. Virginia Chu , Prof. João Pedro Conde

3D pyrolytic carbon microelectrodes for neural stimulation of retinal tissue - Poster T4-P1-TuA-027

» [Mr. pratik Kusumanchi](#) , Dr. Rasmus Schmidt Davidsen , Prof. Stephan Sylvest Keller

Biocompatible, microfabricated pressure-sensitive diaphragms of Parylene-C for long-term medical implants - Poster T4-P1-TuA-028

» [Ms. Ann-Kathrin Klein](#) , Prof. Andreas Dietzel

Multifaceted biophysical characterization of aptamers and its significance in aptasensor development for food monitoring: AFM1 as a case study - Poster T4-P1-TuA-029

» [Mr. Nikitas Melios](#) , Mrs. Maria Gkrintela , Mrs. Zena Chakim , Prof. Anastasios Economou , Prof. George Kontopidis , Dr. George Tsekenis

Benefits of virtual sensors for environmental monitoring in humid conditions - Poster T4-P1-TuA-030

» [Prof. Donatella Puglisi](#) , Dr. Guillem Domènech-Gil

Gas impermeable coatings made from laser-annealed graphene thin films - Poster T4-P1-TuA-031

» [Mr. Jasper Ruhkopf](#) , Dr. Ulrich Plachetka , Ms. Desislava Daskalova , Mr. Michael Moeller , Mr. Oliver Pasdag , Dr. Ivan Radev , Mr. Wladimir Philipp , Dr. Martin R. Lohe , Prof. Max Lemme

Self-driven microfluidic device with modified PDMS for point-of-care immunoassays - Poster T4-P1-TuA-032

» [Mr. Pedro Condélipes](#) , Dr. Ricardo Santos , Dr. Virginia Chu , Prof. João Pedro Conde



Continued from Tuesday, 20 September

Impedance Cytometry for picking electrogenic microorganisms - Poster T4-P1-TuA-033

» [Mrs. Mohadeseh Mozafari](#) , Mr. Peer Erfle , Mr. Jonathan Block , Prof. Andreas Dietzel , Prof. Rainer Krull

Variable-Stiffness Soft Neural Interface for Brain Implants - Poster T4-P1-TuA-034

» [Mr. Clement Cointe](#) , Dr. Christian Bergaud , Dr. Ali Maziz

Development of AuNP-coated cotton for VOC detection in breath - Poster T4-P1-TuA-035

» Ms. Silvia Casalnuovo , Dr. Alessio Buzzin , Dr. Daniela Caschera , Dr. Simone Quaranta , Mr. Fulvio Federici , Prof. Donatella Puglisi , [Prof. Giampiero de Cesare](#) , Prof. Domenico Caputo

Capsule disintegration and enteric coatings for novel SPED devices used in oral drug delivery - Poster T4-P1-TuA-036

» [Dr. Mahdi Ghavami](#) , Mr. Mehrad Rohi Khorasani , Dr. Line Hagner Nielsen , Prof. Anja Boisen

Design and fabrication of a micro-chemostat for E. coli production - Poster T4-P1-TuA-037

» [Mr. MALIK ABDUL WAHAB](#) , Dr. Ana M. Azevedo , Dr. Virginia Chu , Prof. João Pedro Conde , Prof. M.R. Aires-Barros

Modification of silicon oxide surface with aminopropyltriethoxysilane and triethoxysilylundecanal for biomolecule immobilization of biosensor applications - Poster T4-P1-TuA-038

» [Dr. Pawasuth Saengdee](#) , Dr. Nithi Atthi , Mrs. Rattanawan Meananeatra , Mrs. Oraphan Thongsook , Mr. Arckom Srihapat , Mr. Awirut Srisuwan , Dr. Wutthinan Jeamsaksiri

16:45

Poster : T2-P1-TuA

Poster Track 2 - Session 1

Venue - ALMA Cafeteria space - BOARDS TRACK 2

Upscaling of nanostructures via UV-NIL processes for plasmon enhanced bioanalytics - Poster T2-P1-TuA-001

» [Dr. Gerburg Schider](#) , Dr. Anne Linhardt , Dr. Pakapreud Khumwan , Mrs. Cindy Schaude , Dr. Pelin Tören Özgün , Mr. Alexander Wheeldon , Dr. Christina Wohlrab , Dr. Gerhard Hawa , Dr. Ingo Katzmayer , Dr. Max Sonnleitner , Dr. Gerhard Mohr , Dr. Martin Smolka , Dr. Ursula Palfinger , Dr. Dieter Nees , Dr. Stephan Ruttloff , Dr. Johannes Götz , Dr. Anja Haase , Dr. Barbara Stadlober , Dr. Jan Hesse

Dissociable 3-layers Au absorber microfabrication for low-temperature detectors - Poster T2-P1-TuA-002

» [Dr. Jawad Hadid](#) , Dr. Laurence Ferlazzo , Dr. Matias Rodrigues , Mr. Abdelmounaim Harouri , Mr. Christophe Dupuis , Mr. David Bouville , Mr. Antoine Martin , Dr. Martin Loidl

Fabrication and evaluation of tip-array chips in diamond and silicon for application in reverse-tip-sample scanning probe microscopy - Poster T2-P1-TuA-003

» [Dr. Thomas Hantschel](#) , Mr. Antti Kannianen , Ms. Giulia Scamporrino , Mr. Lennaert Wouters

Novel Mixed Dimensional Reconfigurable Field Effect Transistors: Fabrication and Electrical Characterization - Poster T2-P1-TuA-004

» [Mr. Sayantan Ghosh](#) , Dr. Muhammad Bilal Khan , Mr. Phanish Chava , Dr. Kenji Watanabe , Dr. Takashi Taniguchi , Dr. Slawomir Prucnal , Dr. René Hübner , Prof. Thomas Mikolajick , Dr. Artur Erbe , Dr. Yordan M. Georgiev

Dry Aerosol Direct Writing (dADW) of metallic nanoparticle micro-patterns - Poster T2-P1-TuA-005

» Mr. Saleh Aghajani , Dr. Angelo Accardo , [Dr. Marcel Tichem](#)

Fabrication of morphology-tunable ZnO NR arrays via hydrothermal PMMA and ARP template-assisted growth - Poster T2-P1-TuA-006

» [Mr. Achilleas Bardakas](#) , Dr. Danijela Randjelovic , Dr. Konstantina Mergia , Prof. Christoforos Krontiras , Dr. Christos Tsamis



Continued from **Tuesday, 20 September**

Combining microtransfer printing and optical adhesive bonding to customize well bottom properties in multi-well microplates - Poster T2-P1-TuA-007

» [Mr. Rahman Sabahi-Kaviani](#) , [Mrs. Regina Luttge](#)

Multiresonant Aluminum Bowties for broadband SEIRA sensing - Poster T2-P1-TuA-008

» [Ms. Melissa Najem](#) , Mr. Franck Carcenac , Prof. Thierry Taliercio , Dr. Fernando Gonzalez-Posada

Fabrication and Characterization of MoS₂ Nanotube - based Field Effect Transistor - Poster T2-P1-TuA-009

» [Mr. Naoya Shiraiwa](#) , Prof. Takeshi Ito , Prof. Shoso Shingubara , Prof. Tomohiro Shimizu

3-D printing sub-micron multi-nozzles with a two-photon polymerization method - Poster T2-P1-TuA-010

» [Mrs. Farnaz Rezaei](#) , Prof. Jonas Lindh , Dr. Jimmy Hedin Dahlström , Dr. Daniel Carlsson , Prof. Stefan Johansson

Electronic Interactions and Charge Transfer Dynamics of Yolk Shell Nanocrystals for Photocatalysis - Poster T2-P1-TuA-011

» [Mr. JHEN-YANG WU](#) , Mr. Ting-Hsuan Lai , Ms. Mei-Jing Fang , Prof. Jui-Yuan Chen , Dr. Ming-Yu Kuo , Dr. Yi-Hsuan Chiu , Dr. Ping-Yen Hsieh , Ms. Chun-Wen Tsao , Mr. Huai-En Chang , Dr. Yu-Peng Chang , Mr. Chien-Yi Wang , Prof. Tomoyuki Kurioka , Prof. Chun-Yi Chen , Prof. Masato Sone , Prof. Wen-Wei Wu , Prof. Yung-Jung Hsu , Prof. Tso-Fu Mark Chang

Design and fabrication of large area active varifocal metalenses - Poster T2-P1-TuA-012

» [Mr. Ruixuan Zheng](#) , Prof. Changzhi Gu , Prof. Junjie Li

Laser engraved MEMS vertical movement Lorentz force actuator using polyimide substrate for deformable mirror applications - Poster T2-P1-TuA-013

» [Dr. Tao Chen](#) , Dr. Byoungyoul Park , Prof. Cyrus Shafai

Fast Response and Recovery Characteristics of the Al-Doped WO₃/Pt Hydrogen Gas Sensor - Poster T2-P1-TuA-014

» [Mr. Md Mayen Uddin](#) , Mr. Forhaz Farid , Dr. Hyeon Cheol Kim

Sensitivity analysis of nanostructured photonic cantilevers for color imaging- based sensing - Poster T2-P1-TuA-015

» [Dr. Ferran Pujol](#) , Dr. Pedro Escudero , Dr. Rosa Villa , Dr. Mar Alvarez

Lift-off patterning of dispersion-based graphene and its application in environmental sensing - Poster T2-P1-TuA-016

» [Mr. Jorge Eduardo Adatti Estevez](#) , Mr. Fabian Hecht , Mr. Sebastian Wittmann , Mrs. Annika Friederike Weber , Dr. Ulrich Krumbein , Prof. Max C. Lemme

Fabrication and evaluation of SERS structures on boehmite using magnetron sputtering method for molecular sensing - Poster T2-P1-TuA-017

» [Mr. Shunya Saegusa](#) , Mr. Taku Tanaka , Dr. Masayuki Naya , Dr. Takao Fukuoka , Dr. Sho Amano , Prof. Yuichi Utsumi , [Prof. Akinobu Yamaguchi](#)

Transfer-free multi-layered graphene (MLG) on integrated microheaters: an attractive platform for gas sensing - Poster T2-P1-TuA-018

» [Dr. Leandro Sacco](#) , Mrs. Hanxing Meng , [Prof. Sten Vollebregt](#)

Two unique and facile manufacturing processes of flexible piezoresistive pressure sensors - Poster T2-P1-TuA-019

» [Ms. Golezar Gilanizadehdizaj](#) , Prof. Debes Bhattacharyya , Dr. Kean Aw , Dr. Jonathan Stringer

Design of a 3D phononic-fluidic sensor using shape optimization - Poster T2-P1-TuA-020

» [Mr. Yauheni Belahurau](#) , Prof. Niels Aage , Prof. Rasmus Ellebæk Christiansen , Prof. Frieder Lucklum

Response surface methodology for optimization of synthesis conditions of nanosized zinc oxide material by electrospinning technique and their uses in gas sensor - Poster T2-P1-TuA-021

» Prof. Mentbayeva Almagul , [Ms. Rakhmanova Aizhan](#)



Continued from Tuesday, 20 September

Reducing the Variability of RRAM by Graphitic Nanosheets - Poster T2-P1-TuA-022

» Dr. Pratheek Gopalakrishnan , Mr. Nacer Ibaroudene , Dr. Sabyasachi Ganguli , Dr. Ajit Roy , [Prof. Ethan Ahn](#)

Micro and Nano structuring of Parylene C layers for sensors and energy based devices - Poster T2-P1-TuA-023

» [Dr. Joana Vaz Pinto](#) , Mr. Pedro Centeno , Mr. Ricardo Correia , Dr. Joana Neto , Ms. Ivânia Trêpo , Dr. João Coelho , Prof. Maria do Rosário Correia , Prof. Hugo Águas , Prof. Manuel Mendes , Prof. Rodrigo Martins , Prof. Pedro Barquinha

Cyclic olefin (co-)polymer substrate biofunctionalization with 4-carboxybenzene diazonium salts: An optimization study - Poster T2-P1-TuA-024

» [Mrs. Zena Chakim](#) , Mr. Connor O'Sullivan , Dr. Nastasia Okulova , Dr. Jan Kafka , Dr. George Tsekenis

Surface-Enhanced Raman spectroscopy for the detection of analytes with Si nanowires/Ag nanostructures fabricated with MACE technique. - Poster T2-P1-TuA-025

» [Mr. IOANNIS KOCHYLAS](#) , Dr. Anastasios Dimitriou , Ms. Maria-Christina Skoulikidou , Dr. Lampros Patsiouras , Ms. Maria-Athina Apostolaki , Ms. Georgia Geka , Dr. Anastasia Kanioura , Dr. Panagiota Petrou , Dr. Nikos Papanikolaou , Prof. Vlassios Likodimos , Prof. Spiros Gardelis

Development of peptide protein assays for precision medicine sensing platforms - Poster T2-P1-TuA-026

» [Dr. Aruna Chandra SINGH](#) , Dr. Rajendra P. Shukla , Prof. Wouter Olthuis , Dr. Thomas Østerbye , Dr. Cesar Pascual Garcia , Dr. Sivashankar Krishnamoorthy

Cell culture system with drug loaded microparticle capable of real-time monitoring of drug release analysis - Poster T2-P1-TuA-027

» [Ms. Hye Jin Choi](#) , Prof. Gyu Man Kim , Mr. Min Chul Shin , Mr. Ji Hwan Han , Ms. Ji Won Park

Enhancing Surface Sensitivity of Carbon-based Sensors using Gold Nanostars Coated with Polyethylene Glycol - Poster T2-P1-TuA-028

» Ms. Ariadna Schuck , Dr. Hyo Eun Kim , Dr. Minhee Kang , [Prof. Yong-Sang Kim](#)

Selective measurement of CO and CO2 with SAW sensors functionalized with metalloporphyrins and Metal-Organic Frameworks - Poster T2-P1-TuA-029

» [Dr. Meddy Vanotti](#) , Dr. Laurie André , Mr. Sacha Poisson , Ms. Valérie Soumann , Dr. Stéphane Brandès , Dr. Nicolas Brandès , Mr. Jian Yang , Prof. Claude P. Gros , [Dr. Virginie Blondeau-Patissier](#)

Nanosopic Yagi-Uda-Antennas as Sensors in Microfluidic Channels - Poster T2-P1-TuA-030

» [Mr. Felix Nägele](#) , Prof. Monika Fleischer , Dr. Anne-Laure Baudrion-Beal , Dr. Dai Zhang , Prof. Alfred J. Meixner

Microwave-Assisted Synthesis of Novel Nanoparticles for the detection of Phosphate Ions. Turn-off and Turn-on Sensing Examples - Poster T2-P1-TuA-031

» [Prof. Jungseok Heo](#) , [Mr. JinSeong Oh](#) , Mr. Dong Kyu Kim , Dr. Do Yeob Kim , Dr. Bongjin Jeong , Dr. Hyung-Kun Lee

CMOS integrated SnO2 thin film gas sensors functionalized with Pt nanoparticles utilizing a magnetron sputtering-based gas-phase synthesis approach - Poster T2-P1-TuA-032

» [Dr. Larissa Egger](#) , Ms. Florentyna Sosada-Ludwikowska , Mrs. Eva Lackner , Dr. Stephan Steinhauer , Dr. Robert Wimmer-Teubenbacher , Dr. Jerome Vernieres , Dr. Vidyadhar Singh , Dr. Karl rohacher , Mr. Ewald Wachmann , Prof. Mukhles Sowwan , Dr. Anton Köck

Self-adhesive flexible piezoresistive sensor for finger bending detection - Poster T2-P1-TuA-033

» [Mrs. Racha BENARRAIT](#) , Prof. Frederic Lamarque , Prof. Andreas Dietzel , Dr. Muneeb KHAN , Dr. hani Al Hajjar , Dr. Eugen Koch

Continued from **Tuesday, 20 September**

Design, simulation and fabrication of dual-frequency MEMS piezoelectric energy harvester based on room temperature grown AlN thin film - Poster T2-P1-TuA-034

» Dr. maria assunta signore , Dr. chiara de pascali , Dr. Gabriele Rescio , Dr. luciano velardi , Dr. Enrico Melissano , Mr. Pasquale Creti , Ms. concetta martucci , Ms. Adriana Campa , Mr. maurisio masieri , Dr. Pietro Siciliano , [Dr. Luca Francioso](#)

Magnetoelastic coupling in RF Lamb acoustic waveguide based on magnetostrictive TbCo₂/FeCo thin film deposited on AlN/Metal/Diamond membrane. - Poster T2-P1-TuA-035

» Prof. Abdelkrim Talbi , Dr. Aurélien Mazzamurro , Dr. Dusch Yannick , [Mr. MARBOUH OTHMANE](#) , Dr. ghizlane boussatour , Dr. Vincent Mortet , Prof. Philippe Pernod , Prof. Olivier Boumatar , Dr. Nicolas Tiercelin

Micro gas sensor device fabrication with ZnO sensing nanofilms by electron beam lithography - Poster T2-P1-TuA-036

» Mr. Zhifu Feng , Dr. Andrea Gaiardo , [Mr. Alessandro Cian](#) , Mr. Damiano Giubertoni , Dr. Matteo Valt , Mr. Jiri Fiala , Dr. Jiri Babocký , Mr. Milos Hrabovsky , Dr. Pierluigi Bellutti , Prof. Vincenzo Guidi

Towards Atmospheric Radical Sensing: Fabrication of Junctionless Transistors - Poster T2-P1-TuA-037

» [Dr. Muhammad Bilal Khan](#) , Mr. Sayantan Ghosh , Dr. Artur Erbe , Dr. Yordan M. Georgiev

Thin-film silicon MEMS disk resonators designed for high Q-factor in dissipative media - Poster T2-P1-TuA-038

» [Mr. Tiago Pestana](#) , Dr. Virginia Chu , Prof. João Pedro Conde

2D piezoelectric MEMS speaker arrays using Polyimide membrane - Poster T2-P1-TuA-039

» [Mr. Sanjog Vilas Joshi](#) , Mr. Stijn Daerden , Dr. Sina Sadeghpour , Prof. Michael Kraft

Awl Spring MEMS Switches with Nanocrystalline Graphite Sidewall Coating using Spacer Etch Method - Poster T2-P1-TuA-040

» [Ms. YUE FAN](#) , Ms. QI Tang , Dr. Hailong Pi , Dr. Jamie Reynolds , Dr. Suan Hui Pu , Dr. Dinesh Pamunuwa , [Prof. Harold Chong](#)

Four-Level micro-Via Technology (4L μ V) for ASIC Integration in Active Flexible Sensor Arrays - Poster T2-P1-TuA-041

» [Mr. Maolei Zhou](#) , Mr. Chresten Von der Heide , Mr. Kevin Hanka , Ms. Ulrike Passlack , Prof. Andreas Dietzel

Electro-colorimetric Graphene-based FET Sensor for Rapid Isothermal Amplification Diagnostic Test - Poster T2-P1-TuA-042

» Dr. Hyo Eun Kim , Ms. Ariadna Schuck , Mr. Hyeonseok Park , Dr. Minhee Kang , [Prof. Yong-Sang Kim](#)

Low impact load cell based on Carbon Nanotubes for Process Monitoring - Poster T2-P1-TuA-043

» [Mr. Marc Stevens](#) , Mr. Lucas Hamm , Dr. Sascha Hermann

Development of a batch-fabrication process for highly sensitive co-resonant cantilever sensors - Poster T2-P1-TuA-044

» [Mr. Ioannis Lampouras](#) , Prof. Julia Körner

MEMS origami using Al₂O₃ and dry release for facet based device integration - Poster T2-P1-TuA-045

» [Mr. Jianran Zhang](#) , Ms. Johanna Reif , Dr. Carsten Strobel , Dr. Robert Kirchner , Prof. Thomas Mikolajick , Mr. Phanish Chava , Dr. Artur Erbe , Dr. Andreas Voigt

High Strength and High Corrosion Resistance Ni-TiO₂ Composites by Supercritical CO₂-Assisted Co-Electrodeposition towards MEMS Components - Poster T2-P1-TuA-046

» [Mr. Yu-An Chien](#) , Prof. Chun-Yi Chen , Prof. Tomoyuki Kurioka , Prof. Masato Sone , Prof. Tso-Fu Mark Chang

A Resonant Magnetometer Featuring Sideband Actuation with Multiple Mode Readout - Poster T2-P1-TuA-047

» Ms. Xiaoxiao Song , [Dr. Yuan Wang](#) , Prof. Huafeng Liu , [Dr. Chen Wang](#) , Dr. Fangjing Hu , Prof. Michael Kraft , Dr. Chun Zhao



Continued from **Tuesday, 20 September**

Study on filling process of micro-cantilever beam parts by ultrasonic plasticizing micro-injection molding - Poster T2-P1-TuA-048

» [Dr. zhiying shan](#) , Prof. Wangqing Wu

120 K Conductive Based Cryosystem for Ice Lithography in A Compact SEM - Poster T2-P1-TuA-049

» [Mr. Kevin Grenaae Meyer](#) , Mr. Affan Waafi , Prof. Anpan Han

Direct-write fabrication of 3D nanopores for advanced in situ AFM - Poster T2-P1-TuA-050

» [Dr. Robert Winkler](#) , Mrs. Michele Brugger-Hatzl , Mr. Lukas Seewald , Mr. Jakob Ihrenberger , Prof. Harald Plank

Carbon Resistors Integrated in Fully Printed Circuit Boards by Inkjet Printing - Poster T2-P1-TuA-051

» [Dr. Pavel Kulha](#) , [Mr. Peter Bauer](#) , Mr. Gerald Stubauer , Dr. Ayala Kabla , Dr. Fernando de la Vega , Dr. Abd El Razek

Multi-stage nanoimprint lithography for versatile micro-and nanostructuring - Poster T2-P1-TuA-052

» [Ms. Anja Kroetsch](#) , Mr. Christoph Reuter , Prof. Steffen Strehle

Classification of defects in Direct Laser Writing - Poster T2-P1-TuA-054

» [Mr. Sven Fritzsche](#) , [Dr. Ievgeniia Topolniak](#) , Dr. Johanna Sanger , Prof. Heinz Sturm

Study on Mathematical Modelling of Material Removal in Sapphire CMP using Mechanical and Chemical Factors of Silica Particles - Poster T2-P1-TuA-055

» [Dr. Natthaphon Bunathuek](#) , Prof. Keisuke Suzuki , Prof. Panart Khajornrungruang

The Scaling of Transduction from MEMS to NEMS: Design Rules, Instabilities, and Possibilities - Poster T2-P1-TuA-056

» Mr. Konstantinos Tsoukalas , [Prof. Søren Stobbe](#)

Simulation based modelling of sensor enclosure to enhance dc electric field strength on MEMS-based sensors - Poster T2-P1-TuA-057

» [Ms. Sadna Isik](#) , Prof. Cyrus Shafai

A novel approach for manufacturing controllable transparent haptic surfaces by utilizing in situ grown thin films of electroactive polymers - Poster T2-P1-TuA-058

» Mr. Philipp Czyba , [Ms. Sarah Emily Beck](#) , Prof. Stefan Tappertzhofen

Modelling the mechanical response of silicon nanopillars for the design of a biomedical force sensor - Poster T2-P1-TuA-059

» Dr. Juliana Jaramillo-Fernandez , [Ms. Elena Lopez-Aymerich](#) , Prof. Daniel Navarro Urrios , Prof. Mauricio Moreno , Prof. Sergi Hernandez , Dr. Maria Dimaki , Mr. Christian Vinther Bertelsen , Prof. Winnie Edith Svendsen , Prof. Albert Romano-Rodriguez

Package design optimization for metal-oxide gas sensors by open source finite element thermal modeling - Poster T2-P1-TuA-061

» [Dr. Serguei Stoukatch](#) , Dr. Jean-Francois Fagnard , Mr. Francois Dupont , Dr. Philippe Laurent , Prof. Jean-Michel Redoute

Machining Process for Ultra-hard Master Mold with Polycrystalline Tools Using Electrodischarge and Mechanical Machining System - Poster T2-P1-TuA-062

» [Dr. Eun-ji Gwak](#) , Mr. Jongkeun Sim , Mr. Chungmo Kang , Dr. Jun Sae Han , Dr. Tae-Jin Je , Dr. Doo-Sun Choi

17:00

Poster : PESM-P1-TuA

Poster - PESM - Session 1

Venue - Hall O&N II (room 04.298) - BOARDS PESM

Control of the feature morphology using ICP-RIE SiO₂ Etch Processes - Poster PESM-P1-TUA_001

» [Mr. Arne Behrens](#) , Ms. Katharina Nosges , Prof. Andrew R. Gibson , Prof. Thomas Mussenbrok , Prof. Stefan Sinzinger

Continued from **Tuesday, 20 September**

Fabrication of Metal-Insulator-Metal (MIM) capacitors with HfO₂ and Al₂O₃ as high-k dielectric films - Poster PESM-P1-TUA_002

» [Dr. Steffen Marschmeyer](#), Dr. Martin Drost, Mr. Mirko Fraschke, Ms. Kalishettyhalli Mamathamba Mahadevaiah, Dr. Dirk Wolansky, Dr. Marco Lisker

Fabrication and evaluation of different adapter wafers to dry etch 150 mm wafers on a commercial 200 mm etching toolss - Poster PESM-P1-TUA_003

» [Mr. nils dittmar](#), Mr. Robert Kinner, Mr. Dirk Wünsch, Mr. Falk Schwenzer, Dr. Lutz Hofmann, Mr. Micha Haase, Dr. Danny Reuter

Performance comparison of a Bosch versus CORE process for etching silicon nanostructure - Poster PESM-P1-TUA_004

» [Mr. Erkan Karatas](#), Ms. Elena Lopez-Aymerich, [Mr. Christian Vinther Bertelsen](#), Prof. Albert Romano-Rodriguez, Prof. Winnie Edith Svendsen

Fluorine-based plasma etching of optical packaging material AF 32 eco for MOEMS applications - Poster PESM-P1-TUA_005

» [Mr. Thomas Handte](#), Mr. Arne Behrens, Mr. Patrick Feßer, Prof. Stefan Sinzinger

17:00

Poster : T3-P1-TuA

Poster Track 3 - Session 1

Venue - Foyer CAG (room 04.290) - **BOARDS TRACK 3**

Chaired by: Prof. Rob Ameloot

Modification of PET surfaces with plasma etching for triboelectric generators - Poster T3-P1-TuA-001

» Mr. Apostolos Segkos, [Mr. Achilleas Bardakas](#), Dr. Angelos Zeniou, Dr. Evangelos Gogolides, Dr. Christos Tsamis

Laser Patterned MXene Batteries for Li-Ion Battery Applications - Poster T3-P1-TuA-002

» [Mr. Himanaga Rama Krishna Manoj Emani](#), Ms. Valliammai Palaniappan, Dr. Dinesh Maddipatla, Prof. Bazuin Bradley, Prof. Qingliu Wu, Prof. Massood Atashbar

Influence of SiC doping of Poly(lactic Acid) (PLA) for 3D printed triboelectric generators - Poster T3-P1-TuA-003

» Mr. Achilleas Bardakas, Mr. Apostolos Segkos, Mr. George Katsikis, Dr. George Vekinis, [Dr. Christos Tsamis](#)

Understanding the surface chemistry of Sn₃O₄-based gas sensors using operando DRIFT spectroscopy - Poster T3-P1-TuA-004

» [Dr. Pedro Suman](#), Mr. Benjamin Junker, Prof. Udo Weimar, Dr. Nicolae Barsan, Prof. Marcelo Orlandi

3-layered Graphite Electrode with Particle Size Gradient Structure to Improve Cycle Life Performance of Lithium Ion Batteries - Poster T3-P1-TuA-005

» [Ms. Soma Ahmadi](#), Dr. Dinesh Maddipatla, Prof. Qingliu Wu, Prof. Massood Atashbar

AlGaIn/GaN heterostructure based 3-dimensional force sensors - Poster T3-P1-TuA-006

» [Dr. Peter Neumann](#), Dr. János Radó, Dr. János Volk

Optimization of E-Nose Technology for Detecting Nonanal: a COVID-19 Biomarker in Exhaled Breath - Poster T3-P1-TuA-007

» [Dr. Christelle Ghazaly](#), Dr. Krystyna BILETSKA, Dr. Etienne THEVENOT, Prof. Philippe DEVILLIER, Dr. Emmanuel NALINE, Dr. Emmanuel Scorsone, Prof. Stanislas GRASSIN DELYLE

Nanopillar arrays in amorphous silicon exhibiting broadband high contrast spectral response in the visible - Poster T3-P1-TuA-008

» [Mr. Dorian Herle](#), Prof. Guillermo Villanueva, Prof. Niels Quack

Algae manipulating system using cylindrical ultrasonic actuators - Poster T3-P1-TuA-009

» Dr. Chang Han Je, Dr. Joho Yun, Dr. Hyung-Kun Lee, Dr. Songbi Lee, Dr. Sung Q Lee, [Dr. GUNN Hwang](#)

Continued from **Tuesday, 20 September**

3D pillars Plasmonic Contact Electrodes for Photoconductive Terahertz Antennas - Poster T3-P1-TuA-010

» [Dr. Yanfen Zhai](#), Mr. Xurong Li, Mr. Heng Wang, Dr. Gaurav Jayaswal, Dr. Mohssen Moridi, Prof. Mona Jarrahi, Prof. Atif Shamim

Impurity sensing for hydrogen gas using a nafion based electrochemical sensors - Poster T3-P1-TuA-011

» [Dr. SOON-WON JUNG](#), Mr. Min Hyuk Chang, Ms. Jae Eun Kang, Ms. Da Eun Lee, Prof. Seung-Yun Lee

The Electrical Characteristics of the Contact-Faced Double Gate Structure - Poster T3-P1-TuA-012

» [Mr. Sangyong Park](#), Mr. Ju-Hee Lee, Prof. Jin-Hong Park

Integrated electrical impedance spectroscopy (EIS) sensor for monitoring viable biomass in microbioreactors - Poster T3-P1-TuA-013

» [Mr. Sven Meinen](#), Prof. Andreas Dietzel, Mr. Kevin Viebrock, Prof. Rainer Krull

Estimation of sugar content in commercial beverages by a sensitive and compact evanescent-waveguide optical detector - Poster T3-P1-TuA-014

» Dr. Alessio Buzzin, Dr. Badrul Alam, Ms. Francesca Grossi, Prof. Domenico Caputo, [Prof. Giampiero de Cesare](#), Prof. Rita Asquini

A miniature and low cost ozone sensor for occupational exposures assessment - Poster T3-P1-TuA-015

» [Dr. Marianne GUILLEMOT](#), Dr. Christelle Ghazaly, Mrs. Christel Ravera, Mr. Fares Temari, Mr. Jean-Baptiste Lily

Tip Damage during Contact-Resonance Imaging of Micro Pillar Arrays - Poster T3-P1-TuA-017

» Mr. Michael Fahrbach, [Dr. Jiushuai Xu](#), Ms. Tianran Ma, Dr. Min Xu, Dr. Zhi Li, Dr. Uwe Brand, Dr. Jan Martinek, Dr. Petr Klapetek, [Prof. Erwin Peiner](#)

Electrical Devices Based on Square Tin Oxide Nanotubes Grown by Mist Chemical Vapor Deposition - Poster T3-P1-TuA-018

» [Mr. Ryan Adams](#), Dr. Rodrigo Martinez Gazoni, Prof. Roger Reeves, Prof. Martin Allen

Computational analysis of the effects of surface microstructure on the contact-separation mode triboelectric nanogenerator - Poster T3-P1-TuA-019

» [Mr. Forhaz Farid](#), Mr. Md Mayen Uddin, Dr. Hyeon Cheol Kim

Nano and microstructured carbon electrodes for microbial solar cells - Poster T3-P1-TuA-020

» [Ms. Jitka Urbankova](#), Mrs. Galina Pankratova, Ms. Swetha Vasudevan Kanakkottu, Mrs. Paula Onieva Henrich, Prof. Stephan Sylvest Keller, Prof. Jenny Ennéus, Dr. Babak Rezaei, Prof. Jürgen Brugger

Study of photoinduced reversible superwetting states in thin metal oxides of different bandgap fabricated by ALD - Poster T3-P1-TuA-021

» [Dr. Rucha Deshpande](#), Mr. Jesper Navne, Mr. Mathias Adelmarm, Dr. Ada-Ioana Bunea, Prof. Rafael Taboryski, Prof. Julien Bachmann

Fabrication and characterization of ionic liquid based periodic structures on an optical fiber - Poster T3-P1-TuA-022

» [Dr. Katarzyna Komorowska](#), Dr. Natalia Turek, Dr. Adrian Zając, Dr. Marcin Śmiglak, Dr. Tadeusz Martynkien, Mr. Piotr Pala, Dr. Andrea Szecht, Ms. Teresa Sembratowicz

Minimizing time delay of physical sensor protection in low pressure semiconductor processes - Poster T3-P1-TuA-023

» [Dr. Mathis Trant](#), Prof. Christofer Hierold, Dr. Nina Wojtas

Compact nanoelectromechanical optical phase shifters - Poster T3-P1-TuA-024

» [Mr. Bjarke Frederiksen](#), Dr. Babak Vosoughi Lahijani, Mr. Marcus Albrechtsen, Mr. Christian Rosiek, Mr. Konstantinos Tsoukalas, Mr. Thor Weis, Dr. Søren Stobbe

Fluidic Channels for Hybrid Integrated Photonics - Poster T3-P1-TuA-025

» Dr. Alokik Kanwal, [Dr. James Alexander Liddle](#), Dr. Marcelo Davanco



Continued from **Tuesday, 20 September**

Imprinted metal grids as transparent electrodes: the effect of particle geometry on grid microstructure and performance - Poster T3-P1-TuA-026

» Mr. Lukas Engel , [Dr. Thomas Kister](#) , Dr. Lola González-García , Prof. Tobias Kraus

Lateral growth of MoS₂ Field-Effect Transistor via Electrodeposition - Poster T3-P1-TuA-027

» [Mr. Jiapei Zhang](#) , Dr. Nema Abdelazim , Dr. Yasir Noori , Prof. Kees De Groot , Dr. Shihin Thomas , Dr. Victoria Greenacre , Prof. Gill Reid , Prof. Philip Bartlett

Optical Constants and Patterning by Deep UV Lithography of Phase Change Materials for Non-Volatile Reconfigurable Silicon Photonics - Poster T3-P1-TuA-028

» [Dr. Hernan Furci](#) , Mr. Francesco Bertot , Mr. Victor Michaud , Mr. Guillaume Zajac , Ms. Jasmin Spettel , Dr. Dao Thang Duy , Dr. Mohssen Moridi , Prof. Guillermo Villanueva , Prof. Niels Quack

A simple optical characterization method for 3D analysis of dynamic swelling properties of stimuli-responsive hydrogels - Poster T3-P1-TuA-029

» [Mr. Guannan Mu](#) , Ms. Klaudia Rückmann , Prof. Julia Körner

Reduced graphene oxide incorporated gold nano particle coated carbon screen printed electrode for detection of food additive butylated hydroxy anisole (BHA) - Poster T3-P1-TuA-030

» [Dr. Lakshmi Devi Chakkarapani](#) , Dr. Martin Brandl

Resistance Thermal Detector and Thermopile: A comparison of two microcalorimeters for biosensor applications - Poster T3-P1-TuA-031

» [Ms. Martina Freisa](#) , Dr. Thi Hong Nhung Dinh , Dr. Djamila Kechkeche , Prof. Isabelle Le Potier , Prof. Jean Gamby

Improving Low-frequency Noise Performance in Image Sensor Applications by using Double-gate Oxide TFTs - Poster T3-P1-TuA-032

» [Ms. Sara Hong](#) , Prof. Yong-Sang Kim

Optical sensing of acid vapors with vapor-phase deposited metal-organic frameworks - Poster T3-P1-TuA-033

» [Mr. Iorid Smets](#) , Prof. Rob Ameloot

Diffusion-driven directional wetting of gas-entrapping microtextured surfaces (GEMS) - Poster T3-P1-TuA-034

» [Mr. Sankara Narayana Moorthi Arunachalam](#) , Dr. Muhammad Subkhi Sadullah , Dr. Peng Zhang , Prof. Himanshu Mishra

Copper nanowires by anodic polarization and the role of process parameters on glucose electrooxidation - Poster T3-P1-TuA-035

» [Mr. Filippo Franceschini](#) , Prof. Irene Taurino

Fabrication of Ag-capped Si nanopillar substrates with ultra-thin HfO₂ protective coatings for SERS applications - Poster T3-P1-TuA-036

» [Ms. Giulia Zappalà](#) , Mr. Amirali Abbaspourmani , Dr. Tomas Rindzevicius , Prof. Anja Boisen

Ionic conductivity of solid electrolyte Na₃OBr improved by sulfur ions doping - Poster T3-P1-TuA-037

» [Mr. Hiroaki Asakawa](#) , Mr. Yuki Osaki , Ms. Wei Shi , Dr. Mariko Murayama , Prof. Xinwei Zhao

Improvement in the electrical performance of polyethylene oxide-based triboelectric nanogenerators by introducing sodium chloride - Poster T3-P1-TuA-038

» [Ms. Chaeun Lee](#) , Mr. Sanghyun Park , Mr. Changwoo Cho , Prof. Je Hoon Oh

Topology optimization for suspended nanophotonic circuits - Poster T3-P1-TuA-039

» [Mr. Christian Anker Rosiek](#) , Prof. Rasmus Ellebæk Christiansen , Mr. Marcus Albrechtsen , Dr. Babak Vosoughi Lahijani , Prof. Søren Stobbe



Continued from **Tuesday, 20 September**

Two-frequencies inkjet 3D printed electromagnetic energy harvester - Poster T3-P1-TuA-040

» [Prof. Rafal Walczak](#) , Mr. Bartosz Kawa

A Thermal Flow Sensor Platform with Temperature and Pressure Compensation - Poster T3-P1-TuA-041

» [Dr. Ethan Gardner](#) , Mr. Jonathan Hardie , Mr. Jon Callan , Dr. John Joyce , Mr. Chris Rosser , Dr. Claudio Falco , Dr. Zeeshan Ali , Dr. Cerdin Lee , Dr. Andrea de Luca , Prof. Florin Udrea

Piezoresistive Pressure Sensor with Stress-Engineered Structure for Under-/Over- Etching Protection - Poster T3-P1-TuA-042

» [Dr. Ethan Gardner](#) , Dr. Julien Philippe , Dr. Andrea de Luca , Prof. Daniela Dragomirescu , Prof. Florin Udrea

Miniaturized differential scanning calorimeter (DSC) with high resolution and high heating rates - Poster T3-P1-TuA-043

» [Prof. Ralf Moos](#) , Mr. Robin Werner , Ms. Johanna Distler , Mr. Michael Gerlach , Mr. Michael Gollner , Mr. Florian Linseis , Dr. Jaroslaw Kita

Organic neuromorphic electronics for local learning and control in robotics - Poster T3-P1-TuA-044

» [Mrs. Imke Krauhausen](#) , Dr. Paschalis Gkoupidenis , Dr. Yoeeri van de Burgt

Flexural Plate Wave Piezoelectric MEMS Transducer for Cell Alignment in Aqueous Solution - Poster T3-P1-TuA-045

» [Dr. Alessandro Nastro](#) , Dr. Marco Baù , Prof. Marco Ferrari , Prof. Libor Rufer , Prof. Skandar Basrour , Prof. Vittorio Ferrari

Demonstration of enhanced switching variability and conductance quantization properties in a SiO₂ conducting bridge resistive memory with embedded 2D MoS₂ material - Poster T3-P1-TuA-046

» Mr. Stavros Kitsios , Dr. Panagiotis Bousoulas , Mr. Dimitris Spithouris , [Prof. Dimitris Tsoukalas](#)

Neuroaccelerometer using reservoir computing with parametric nonlinear response - Poster T3-P1-TuA-047

» [Mr. Takahiro Mizumoto](#) , Dr. Amit Banerjee , Dr. Jun Hirotsu , Prof. Toshiyuki Tsuchiya

Design and Fabrication of a novel monolithic 3D printed air flow sensor - Poster T3-P1-TuA-048

» [Prof. Dimitrios-Nikolaos Pagonis](#) , Mr. Ioannis Matsoukas , Mr. Aggelos Pilatis , Prof. Grigoris Kaltsas

18:15

General : ImecV_A_TuA

imec visit A - 60 min - INVITATION ONLY - 20p

Venue - imec vzw - ODD groups

Chaired by: Mr. Sebastian Lukas and Mr. Hung Nguyen and Dr. Frederic Hamouda and Dr. Angelo Accardo and Dr. Margus Kodu and Mrs. Mahdieh Yariesbouei and Dr. Park Se-Geun and Dr. Elena Losero and Prof. Ou Yiyu and Dr. Priyanka Singh and Mr. Dongkai Guo and Dr. Guillem Domènech-Gil and Dr. Tu Jhih-Sian and Dr. Mikko Tuohiniemi and Dr. Uwe Hübner and Mr. Ahmed Sharaf and Mr. Marc Zuiddam and Mr. Sri Harsha Paladugu and Dr. Ivan Bobrinetskiy and Mr. Stefan Jarić

18:30

General : KULV-A-TuA

KU Leuven Nanocentre visit A - INVITATION ONLY - 15p

Venue - KU Leuven Nanocentre

Chaired by: Prof. Chanseob Cho and Mr. Shinung KIM and Mr. Qais Akolawala and Ms. Nastaran Barin and Mr. Ben Rowlinson and Ms. Golezar Gilanizadehdizaj and Ms. YUE FAN and Prof. Leandro Lorenzelli and Mr. Jiale Zeng and Dr. Ievgeniia Topolniak and Ms. Laura Barillas-Mora and Mr. Dennis Becker and Dr. Rajendra P. shukla and Prof. Hengky Chandralalim and Mr. Jannis Morsch



Continued from **Tuesday, 20 September**

18:45 **General : ImecV_B_TuA**
imec visit B - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - EVEN groups
 Chaired by: Mr. Samridh Sharma and Dr. Richard Cousins and Dr. Luca Anzi and Mr. Daniel Moreno and Mr. Florian Fuchs and Mrs. Thi Nhung Pham and Ms. Cristiana Domingues and Mr. Rodolfo Rodrigues and Ms. Sofia Relvas and Ms. Rafaela Rosa and Mr. Rui Meirinho and Mr. Sukjong Bae and Ms. Amanda Greene and Dr. Sébastien VIGNE and Mr. Tiago Pestana and Ms. Filipa Flora and Mr. Daniel-Alexander Braun and Mr. David Lynes and Mr. Forhaz Farid

19:00 **General : CH-TuE**
Reception at City Hall - INVITATION ONLY - 175p
Venue - Leuven City Hall
 Chaired by: Prof. Jo De Boeck and Mr. Thomas Van Oppens and Prof. Gerard Govers and Dr. Jean-Francois de Marneffe and Prof. Michael Kraft

Welcome to Leuven
 » Thomas Van Oppens, Gerald Govers, Jo De Boeck

19:15 **General : ImecV-C-TuA**
imec visit C - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - ODD groups
 Chaired by: Mr. Aniket Udepurkar and Dr. Olaf Brox and Prof. Donatella Puglisi and Ms. Sophia Schröder and Dr. Jan Kafka and Mr. Ismael Gisch and Mr. Bernhard Lüttgenau and Mr. Isaac Weaver and Mr. Jochen Zimmer and Mr. Alexander Legant and Mr. Lasse Frølich and Dr. Torben Dankwort and Dr. Ole Behrmann and Mr. Minhaz Ahmed and Prof. Harold Chong and Dr. AHMET TOPRAK and Mrs. Imke Krauhausen and Mr. Md Mayen Uddin and Mr. Mehdi Allameh

19:30 **General : KULV-B-TuA**
KU Leuven Nanocentre visit B - INVITATION ONLY - 15p
Venue - KU Leuven Nanocentre
 Chaired by: Mr. Jianran Zhang and Dr. Sascha Brose and Mr. choayb omar and Ms. Martina Freisa and Mr. Seyed Mehran Mirmohammadi and Dr. Mathias Hädrich and Dr. Seungkyu Ha and Mr. ANDY KAH PI TAY and Ms. Klaudia Rückmann and Mr. pratik Kusumanchi and Dr. Laurence Ferlazzo and Ms. Sitao Wang and Mr. Thomas Wöhrl and Dr. Filipe S. Alves and Dr. Silvia Diewald

19:45 **General : ImecV-D-TuA**
imec visit D - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - EVEN groups
 Chaired by: Mr. Mohammad Khorsand Ahmadi and Ms. Inês Pereira and Mr. Ioannis Lampouras and Mr. Roberto Russo and Dr. Sonia Freddi and Dr. Sriram Thoppe Rajendran and Mr. Wei Liu and Ms. Eva-Maria Korek and Mr. Berke Erbas and Mr. IOANNIS KOCHYLAS and Dr. Hernan Furci and Mr. André Chatel and Mrs. Ines Stolberg and Mr. Nicolai Støvring and Ms. Giulia Zappalà and Dr. Tien-Jen Chang and Dr. Mahdi Ghavami and Prof. Rémi Dussart and Mr. Swapnendu Ghosh and Dr. Lixiang Wu

20:00 **General : PESM-D-TuN**
PESM Dinner - UPON REGISTRATION
Venue - Wok Dynasty - <https://wokdynasty.be/heverlee>
 Chaired by: Dr. Alexey Milenin

20:00 **General : iMNEs-D-TuN**
iMNEs dinner - INVITATION ONLY
Venue - Restaurant TAFEL RONDE - <https://www.th4th.com/nl/tafelrond>
 Chaired by: Prof. Urs Stauer and Dr. Jean-Francois de Marneffe and Prof. Michael Kraft

Continued from **Tuesday, 20 September**

20:15 **General : ImecV-E-TuA**
imec visit E - 60 min - INVITATION ONLY - 20p
 Venue - imec vzw - ODD groups

Chaired by: Dr. Jakub Haberko and Mr. Rahman Sabahi-Kaviani and Ms. Setareh Kazemzadeh and Mr. Takahiro Mizumoto and Mr. Shuya Okayama and Dr. Annalisa De Pastina and Dr. Nikolai Andrianov and Dr. Jonas Müller and Dr. Jawad Hadid and Dr. Sarah Risquez and Mr. Jan Szabados and Dr. Yanfen Zhai and Dr. Anton Lagosh and Dr. Serguei Stoukatch and Ms. Melissa Najem and Mr. Sven Glabisch and Ms. Inês S. Garcia and Dr. Diogo E. Aguiam and Dr. Joao Cunha and Mr. José B. Queiroz

20:30 **General : KULV-C-TuA**
KU Leuven Nanocentre visit C - INVITATION ONLY - 15p
 Venue - KU Leuven Nanocentre

Chaired by: Mr. JHEN-YANG WU and Dr. Kousik Bagani and Silvia Armini and Dr. James Alexander Liddle and Ms. Ji Won Park and Ms. Hye Jin Choi and Ms. Swetha Vasudevan Kanakkottu and Dr. Nicole Paczia and Prof. Woo-Tae Park and Ms. Monica Quarato and Mr. Mohammad Ramezannezhad and Mr. Brian Reynolds and Mr. Lukas Stampfer and Mr. Mark Reynolds and Mr. Minoru Shichino

20:45 **General : ImecV-F_TuA**
imec visit F - 60 min - INVITATION ONLY - 20p

Venue - imec vzw - EVEN groups

Chaired by: Dr. Tetsuro Nakasugi and Mr. Matthias Nestler and Mrs. Shirin Azadi Kenari and Mr. Mehmet Taha Haliloğlu and Mr. Jiapei Zhang and Mrs. olfa karker and Ms. Ana Luiza Silveira Fiates and Ms. Wiebke Gehlken and Dr. Koen Vanmol and Ms. Lisa Weber and Dr. Alessandro Nastro and Mr. Nicolas Fumeaux and Mr. James Bourely and Mr. Jorge Eduardo Adatti Estevez and Mr. Guannan Mu and Mr. Pedro Condelipes and Dr. Janwa EL MAISS and Dr. Aruna Chandra SINGH and Prof. Ralf Moos and Mr. Karl Gündel

Wednesday, 21 September

09:00 **Keynote : PL-B-WeM**
Plenary Session B - 90min

Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)

Chaired by: Prof. Tristan Gilet and Prof. Laurent Francis

PLENARY - Predictive health based on multimodal sensing in and around the body

» [Prof. Chris Van Hoof](#)

PLENARY - Influence of sensing material characteristics on gas sensor properties

» [Dr. Bilge Saruhan-Brings](#), Dr. Svitlana Nahirniak, Dr. Roussin Lontio Fomekong

11:00 **Oral : T2-D-WeM**
Oral Track 2 - Session D - Sensors and Actuators - 90min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Jürgen Brugger and Harrie Tilmans



Continued from **Wednesday, 21 September**

Microstructures in liquid crystal devices

» [Prof. Cliff Jones](#)

3D printed Coriolis mass flow sensor

» [Mrs. Mahdiah Yariesbouej](#), Mr. Remco G.P. Sanders, Dr. Remco Wiegerink, Prof. Joost Lötters

Near room temperature detection of aromatic compounds using inkjet-printed plasticized polymer composites

» Dr. Mohammad Mahdi Kiaee, [Dr. Thomas Maeder](#), Prof. Jürgen Brugger

Microsensors based on Fe₂O₃ sheet-like structures with thermo- and photo-activated sensitivity to toxic and greenhouse gases

» Dr. Stella Vallejos Vargas, [Dr. Milena Tomic](#), Dr. Isabel Gràcia, Dr. Eduard Figueras, Prof. Carles Cané

Development of a silicon micromachined water-fueled microthruster with integrated sensing capabilities and in-channel precision heaters

» [Dr. Luca Francioso](#), Dr. Donato Fontanarosa, Dr. Michele Fragnelli, Dr. Dries Van Langenhove, Prof. Maria Grazia De Giorgi, Mr. Pietro Siciliano, Prof. Maria Rosaria Vetrano

11:00

Oral : PESM-C-WeM

Oral PESM - Session C - More-Than-Moore - 120min

Venue - BMW5 - 129 seats (room 04.208)

Chaired by: Prof. Rémi Dussart and Dr. Markus Heyne

Chemically enhanced dry etching of Al_{0.7}Sc_{0.3}N for MEMS applications

» [Dr. Nikolai Andrianov](#), Dr. Annalisa De Pastina, Dr. Sarah Risquez, Dr. Mohssen Moridi

Dry etching study of 3D Grayscale micrometric patterns into a polymer layer

» [Ms. Assia Selmouni](#), Dr. Aurélien Tavernier, Mr. Sébastien Berard Bergery, Dr. Nicolas Posseme

Computer vision assisted full wafer scale evaluation of process parameters and trends in deep silicon etch

» Dr. Pedro González-Losada, Dr. Joao Cunha, Ms. Inês S. Garcia, Mr. Carlos Ferreira, Mr. Tiago Ribeiro, Dr. Carlos Calaza, Dr. José Fernandes, Mr. Hélder Fonseca, Ms. Ana R. Cortez, Mr. Marcos Sampaio, Dr. João Gaspar, [Dr. Diogo E. Aguiam](#)

Top-down fabrication of complex nanophotonic lasers from bonded III-V semiconductor layers

» [Mr. Jakub Dranczewski](#), Ms. Anna Fischer, Ms. Preksha Tiwari, Mr. Markus Scherrer, Dr. Dhruv Saxena, Mr. Heinz Schmid, Prof. Riccardo Sapienza, Prof. Kirsten Moselund

DTI profile control through RAP etch rate per cycle

» [Mr. Giovanni Feliciani](#), Dr. Bruno Moio, Mrs. Marialisa Villa, Dr. Marcello Ravasio

TRACK INVITED - Deep reactive ion etching of bulk titanium for implantable devices

» [Dr. Tillocher Thomas](#), Ms. Rim Ettouri, Mr. Philippe Lefaucheux, Mr. Bertrand Boutaud, Prof. Rémi Dussart

Fabrication of monolithic silicon perforated membrane microchips by multistep plasma etching with alumina hard mask

» [Mr. Sanjeev Vishal Kota](#), [Prof. Henri Jansen](#), Prof. Rafael Taboryski, Dr. Jesper Yue Pan, Prof. Jörg Hübner, Dr. Anil Thilsted

11:00

Oral : T1-B-WeM

Oral Track 1 - Session B - EUV lithography - 120min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: Dr. Vicky Philipsen and Dr. Roberto Fallica

TRACK KEYNOTE - The Challenges and Limits of EUV Lithography

» [Dr. Harry Levinson](#)



Continued from **Wednesday, 21 September**

Adhesion and pattern collapse in EUV lithography for p28 nm and future nodes at high NA

» Dr. Roberto Fallica , [Mr. Seong Gil Heo](#) , Dr. Danilo De Simone , Mr. Steven Chen , Dr. Paulina Rincon , Dr. Hyo Seon Suh

Ru/Ta Bilayer Approach to EUV Mask Absorbers: Experimental Patterning and Simulated Imaging Perspective

» [Mr. Devesh Thakare](#) , Dr. Jean-Francois de Marneffe , Prof. Annelies Delabie , Dr. Vicky Philippsen

Towards the resolution limit of Talbot lithography with compact EUV exposure tools

» [Mr. Bernhard Lüttgenau](#) , Dr. Sascha Brose , Dr. Serhiy Danylyuk , Dr. Jochen Stollenwerk , Prof. Carlo Holly

Highly Fluorinated Zn(II)-based Phthalocyanines as Resist Candidates for Extreme UV Lithography

» [Ms. Yejin Ku](#) , Mr. Jun-il Kim , Dr. Hyun-Taek Oh , Mr. Minkyu Choi , [Prof. Jin-Kyun Lee](#) , Dr. Kang-Hyun Kim , Dr. Byeong-Gyu Park , Dr. Sangsul Lee , Dr. Chawon Koh , Dr. Tsunehiro Nishi , Dr. Hyun-Woo Kim

Iodinated Sensitisers for Chemically-amplified Photoresists used for Extreme UV Lithography

» Mr. Han Bit Park , Ms. Yejin Ku , [Prof. Jin-Kyun Lee](#) , Mr. Jeongsik Kim , Mr. Myounghyun Hur , Dr. Jaehyun Kim

11:00

Oral : T3-D-WeM

Oral Track 3 - Session D - Energy - 120min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Dr. Priyanka Singh and Prof. Philippe Vereecken

TRACK INVITED - Li-ion batteries – a story about (nano)materials and interfaces

» [Prof. Philippe Vereecken](#)

Flexoelectric Energy Conversion in Polymer Films – New Opportunities for Sensing and Energy Harvesting?

» [Mr. Lars Seyfert](#) , Prof. Norbert Schwesinger , Mr. Hassen Ben Ammar , Mr. Wolfgang Hölzl , Prof. Gabriele Schrag

Near Zero Power Wakeup using MEMS based Piezoelectric Energy Harvester

» [Mr. Minhaz Ahmed](#) , Dr. Björn Gojdka , Dr. Torben Dankwort , Mr. Sven Gruenzig

Increasing the performance of versatile magneto-electric MEMS energy harvesters

» Mr. Minhaz Ahmed , [Dr. Torben Dankwort](#) , Mr. Sven Gruenzig , Mr. Anmol Khare , Dr. Björn Gojdka

3D printed micro fuel cells for point-of-care diagnostics

» [Ms. Lore Van Looy](#) , Mr. Frederic Becker , Prof. Philippe Vereecken , Prof. Rob Ameloot

Light-harvesting SiC/Si heterostructure utilising the lateral photovoltaic effect in a micro floating SiC meandering beam

» [Mr. Hung Nguyen](#) , Mr. Trung-Hieu Vu , Dr. Hong-Quan Nguyen , Dr. Van Dau , Prof. Dzong Dao

REMOTE - Self-healing, fluorine-free liquid-repellent nanohierarchical coatings using metal-organic frameworks

» [Mr. Jianhui Zhang](#) , Dr. Vikramjeet Singh , Mr. Wei Huang , Prof. Manish Tiwari

11:15

Oral : T4-D-WeM

Oral Track 4 - Session D - Intracellular interface - 60min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Dr. Leeya Engel and Prof. Anpan Han

Stiff polysilicon devices as intracellular mechanical drugs

» [Dr. María Isabel Arjona](#) , Mrs. Marta Duch Llobera , Dr. Alberto Hernández-Pinto , Dr. Patricia Vázquez , Dr. Juan Pablo Aguilá , Dr. Rodrigo Gómez-Martínez , Dr. Mariano Redondo-Horcajo , Dr. Ezhil Amirthalingam , Prof. Lluïsa Pérez-García , Dr. Teresa Suárez , Prof. José A. Plaza



Continued from **Wednesday, 21 September**

Optical devices for wireless recording of intracellular electrical activities by mirroring action potentials

» [Dr. Francesco De Angelis](#)

H-Comb nanodevices for the study of intracellular forces and mechanical property changes in one-cell embryo development

» [Mrs. Marta Duch Llobera](#), Dr. Núria Torras, Dr. Maki Asami, Mr. Toru Suzuki, Dr. María Isabel Arjona, Dr. Rodrigo Gómez-Martínez, Dr. Matthew VerMilyea, Dr. Robert Castilla, Prof. José A. Plaza, Dr. Anthony C. F. Perry

Efficient and minimally perturbative transfection of human primary immune cells with high-aspect ratio nano-structures

» [Prof. Andy Kah Ping Tay](#)

13:00

Oral : IS-A2-ThA

Industrial Session A2 - Nano/Micro Fabrication Methods and Processes - 30min

Venue - BMW3 - 129 seats (room 04.216)

Chaired by: Dr. Masoumeh Keshavarz and Dr. Chen Wang

OXFORD INSTRUMENTS PLASMA TECHNOLOGY

» Ms. Anna Maria Stavropoulou, [Mr. Marc Sellschopp](#)

GENISYS GmbH

» [Mr. Nezh Ünal](#)

KONNEXIONS - Connecting Measurements, Providing Solutions

» [Mr. KRIS PEERAER](#)

POLYTEC GmbH: Optical vibration and topography measurement

» [Mr. Markus Heilig](#)

ZEON Corporation

» [Dr. Kamil PAul Rataj](#), Mr. Jan Ronsmans

EV Group (EVG)

» [Mr. Robert Eichinger-Heue](#)

13:15

Oral : T4-E-WeA

Oral Track 4 - Session E - Biosensors 1- 105min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Prof. Rafal Walczak and Prof. Christophe Vieu

Investigation of the electrical response of a carbon nanotube-based biosensor for the specific detection of nucleic acids

» [Ms. Leticia Alves da Silva](#), Mr. Simon Böttger, Mr. Martin Hartmann, Dr. Sascha Hermann

Point-of-use single step microfluidic sensor and in-field sample treatment for the detection of abiotic and biotic stresses in grapevines

» [Ms. Cristiana Domingues](#), Mr. Rui Meirinho, Mr. Rodolfo Rodrigues, Ms. Rafaela Rosa, Prof. Ana Margarida Fortes, Dr. Virginia Chu, Prof. João Pedro Conde

Silicon nitride photonic biosensing platform for microRNAs detection

» [Dr. Florenta Costache](#), Dr. Ziyu Wang, Mr. Meysam Namdari, Dr. Zhiqiu Lu, Dr. Martin Blasl, Dr. David Smith, Mr. Hendrik Reichelt, Ms. Charlotte Gessinger, Mr. Andreas Koelsch

Functional Surface for Biological Analysis Based on Split Aptamers and Lab-On-Chip

» Mrs. Manasa Nandimandalam, [Dr. Francesca Costantini](#), Dr. Nicola Lovecchio, Dr. Lorenzo Iannascoli, Prof. Augusto Nascetti, Prof. Cesare Manetti, Dr. Valeria Scala, Prof. Giampiero de Cesare, Prof. Domenico Caputo

Absorption Measurement System based on a Silicon Nitride photonic waveguide platform

» [Mr. Pieter Neutens](#), Mr. Roelof Jansen, Dr. Gabrielle Woronoff, Dr. Monika Rutowska, Dr. Naser Hosseini, Dr. Federico Buja, Dr. Aurelie Humbert, Dr. Frederik Colle, Dr. Tim Stakenborg, Dr. Wim Van Roy



Continued from **Wednesday, 21 September**

Photonic nanosystem for the continuous two-dimensional stretch monitoring of fresh tissue biopsies

» [Prof. Albert Romano-Rodriguez](#), Prof. Winnie Edith Svendsen, Dr. Katrin Schmitt, Dr. Noemí De Lluna, Mrs. Sheila Guisado

Development of an integrated breath analysis technology for on-chip aerosol capture and molecular analysis

» [Mr. Filip Paeps](#), Mr. Thomas Degreef, Mr. Wout Duthoo

13:30

Oral : T2-E-WeA

Oral Track 2 - Session E - Sensors and Actuators - 75min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Irene Taurino and Prof. Ulrich Schmid

Development of graphene electric field sensor for large scale lightning detection network

» [Dr. Afsal Kareekunnan](#), Dr. Manoharan Muruganathan, Dr. Takeshi Kudo, Mr. Yoshito Abe, Mr. Takeshi Maruyama, Prof. Hiroshi Mizuta

High-frequency properties of biodegradable sensitive coatings for RF humidity sensing

» [Mr. James Bourely](#), Mr. Nicolas Fumeaux, Mrs. Leticia de Sousa, Dr. Christian Beyer, Dr. Oleksandr Vorobyov, Dr. Danick Briand

Planar Junctionless field-effect transistor for sensing biomolecular interactions

» [Dr. Rajendra P. shukla](#), Mr. Johan Bommer, Mr. Daniel Wijnperle, Dr. Sergii Pud, Prof. Wouter Olthuis, Dr. Naveen Kumar, Dr. Vihar Georgiev, Dr. Cesar Pascual Garcia

Sintering of fully degradable printed Zn resistors for temperature sensing applications

» [Mr. Nicolas Fumeaux](#), Ms. Melissa Kossairi, Mr. James Bourely, Dr. Danick Briand

Microfluidic Flow Optimization at an Aperture by Computational Fluid Dynamics Simulation

» [Mr. Yuan Cao](#), Mr. Erkan Yilmaz, Prof. Uwe Schnakenberg

13:30

Oral : IS-B2-ThA

Industrial Session B2 - Lithography - 30min

Venue - BMW2 - 252 seats (room 04.220)

Chaired by: Dr. sohail faizan shaikh and Dr. Sina Sadeghpour

MICRO RESIST TECHNOLOGY: Enabling micro and nanoengineering with advanced photoresists and polymer solutions

» [Dr. Arne Schleunitz](#)

VISTEC Electron Beam: Company and Technology Introduction

» [Dr. Mathias Hädrich](#)

ALLRESIST - Customized e-beam resists for different applications

» [Dr. Mandy Sendel](#), Dr. Maik Gerngroß, Mr. Harry Biller, Mr. Matthias Schirmer

PROFACTOR GmbH

» Dr. Michael Muehlberger, Dr. Pavel Kulha, [Dr. Leo Schranzhofer](#)

14:15

Oral : PESM-D-WeA

Oral - PESM - Session D - Emerging etching concept - 105min

Venue - BMW5 - 129 seats (room 04.208)

Chaired by: Dr. Alexey Milenin and Dr. Harm Knoops

TRACK KEYNOTE - Emerging etching and patterning technologies: from concepts to practical applications

» [Dr. Thorsten Lill](#), Dr. Meihua Shen, Dr. John Hoang, Dr. Ivan Berry, Dr. Andreas Fischer

a-Si and Si3N4 atomic layer cryoetching using fluorine based chemistry

» [Prof. Rémi Dussart](#), [Dr. Tillocher Thomas](#), Dr. Gaelle Antoun, Mr. Jack Nos, Mr. Philippe Lefauchaux, Dr. Aurélie Girard, Dr. Christophe Cardinaud



Continued from **Wednesday, 21 September**

Selective etching of Si₃N₄ over Si and SiO₂ for spin qubit transistor technology

» [Ms. Andréa Fassion](#) , Dr. Aurélien Sarrazin , Dr. Thierry Chevolleau , Dr. Nicolas Posseme

Investigation of ALE synergy for advanced FDSOI qubit contact etching

» [Mr. Antoine Ronco](#) , Dr. François Boulard , Dr. Nicolas Posseme

An insight on plasma-surface interaction mechanisms during cryoetching in SiF₄-O₂, using in situ XPS

» [Dr. Christophe Cardinaud](#) , Dr. Aurélie Girard , Mr. Jack Nos , Dr. Tillocher Thomas , Prof. Rémi Dussart

14:15

Workshop : PoKo-WeA

Optical metrology in micro and nanoengineering: Challenges and solutions; Polytec & Konnexions workshop - 75min

Venue - BMW4 - 105 seats (room 04.212)

Chaired by: Mr. Markus Heilig and Olivier De Moor

Detection of flexoelectric-based motion by laser doppler vibrometry

» [Mr. Lars Seyfert](#) , Mr. Andrej Voss , Prof. Gabriele Schrag

Piezoelectric micromachined ultrasound transducer (PMUT) for medical imaging

» [Dr. Sina Sadeghpour](#)

Characterization dynamics of encapsulated silicon MEMS devices using low-coherence heterodyne LDV technology

» Dr. Marco Wolfer , [Mr. Markus Heilig](#) , Mr. Moritz Giesen , Dr. Marcus Winter , Dr. Volker Seyfried

Characterizing graphene-based resonant vibrometers

» [Mr. Daniel Moreno](#) , Prof. Xuge Fan , Prof. Frank Niklaus , Prof. Guillermo Villanueva

Performance characterisation of an IR temperature sensor using an IR vibrometer in combination with thermal activation

» [Dr. Appo van der Wiel](#) , Dr. Steffen Kurth , Dr. Marco Wolfer

14:30

Oral : T1-C-WeA

Oral Track 1 - Session C - Patterning & Processes - 120min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: silvia Armini and Prof. Annelies Delabie and Dr. Thierry Chevolleau

TRACK INVITED - Area-selective deposition when pattern dimensions reach the nanoscale

» [Prof. Annelies Delabie](#) , Dr. Rachel Nye , Prof. Gregory Parsons , Dr. Jean-Francois de Marneffe , Mr. Jan-Willem Clerix , Ms. Jyoti Sinha , Dr. Laura Nyns

Graphene functionalization as a seed for dielectric growth on monolayer WS₂

» [Mr. Pieter-Jan Wyndaele](#) , Dr. Jean-Francois de Marneffe , Mr. Rudy Verheyen , Dr. Steven Brems , Dr. Daire Cott , Ms. Stefanie Sergeant , Dr. Arantxa Maestre , Prof. Stefan De Gendt

Effect of CMP process on Ba doped PZT deposited by PLD

» [Ms. Federica Luciano](#) , Mr. Giacomo Talmelli , Prof. Stefan De Gendt , Dr. Florin Ciubotaru , Dr. Christoph Adelmann

Top-down patterning of CsPbBr₃ thin films using reactive ion etching

» [Mr. Saeed Goudarzi](#) , Dr. Piotr J. Cegielski , Mr. Manuel Runkel , Mr. Federico Fabrizi , Mr. Cedric Kreuzel , Mrs. Lyudmila Starodubtceva , Prof. Thomas Riedl , Prof. Max Lemme

Low-Temperature Monolithic Fabrication of Silicon Nanowires with Reduced Process Complexity

» [Mr. Sina Zarepakzad](#) , Dr. Mehrdad Karimzadehkhoei , Prof. B. Erdem Alaca



Continued from **Wednesday, 21 September**

On-axis, substrate-emitting, double-ring interband cascade lasers in continuous-wave operation

» [Mr. Georg Marschick](#) , Ms. Hedwig Knötig , Dr. Robert Weih , Dr. Johannes Koeth , Prof. Gottfried Strasser , Dr. Borislav Hinkov

Advanced patterning - ion beam etching of slanted surface relief gratings

» Ms. Manuela Lötsch , [Mr. Matthias Nestler](#)

14:30

Oral : T3-E-WeA

Oral Track 3 - Session E - Logic, magnetism, alternative MEMS - 90min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Dr. Jakub Haberko and Dr. Luca Francioso

Liquid crystal elastomer actuators - from linear actuators to inchworm motors and optical pliers

» [Dr. Jakub Haberko](#)

Internal Resonance in Piezoelectric Micromachined Ultrasound Transducers

» [Dr. Priyanka Singh](#) , Dr. Nishta Arora , Mr. Sri Harsha Paladugu , Prof. Akshay Naik , Prof. Rudra Pratap

Investigation of spin Hall effect in MBE grown Bi2Se3 for spin-orbit-torque-based devices

» [Dr. Himanshu Sharma](#) , Mr. Daniele Narducci , Mr. Raphael Marichal , Prof. Pascal Gehring , Dr. Bart Raes , Prof. Joris Van de Vondel , Prof. Stefan De Gendt , Prof. Clement Merckling

Linearity of Asymmetric High Frequency CNT transistors

» [Mr. Martin Hartmann](#) , Mr. Simon Böttger , Dr. Sascha Hermann

Geometric Study of Polymer Embedded Micro Thermoelectric Cooler with Optimized Contact Resistance

» [Dr. Heiko Reith](#)

Back-end-of line SiC based memristor for resistive memory and artificial synapse

» [Mr. Dongkai Guo](#) , Mr. Kapur Omesh , Mrs. Liudi Jiang , Prof. Kees De Groot , Mr. Ruomeng Huang

15:15

Oral : T2-F-WeA

Oral Track 2 - Session F - Inertial Sensors and Resonators - 75min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Michael Kraft and Prof. Markus Graf

Modelling of Nonlinear Resonance Behavior in 1- ω Mixing Measurement for 125-MHz Silicon Nanoelectromechanical Resonator

» [Mr. FANG BEN](#) , Mr. James Fernando , Dr. Jun-Yu Ou , Dr. Yoshishige Tsuchiya

Thin-film Silicon Weakly Coupled MEMS Resonators on Glass Substrates for Mass Sensing Applications

» [Mr. Tiago Pestana](#) , Ms. Hafsa Ben Messaoud , Dr. Virginia Chu , Prof. João Pedro Conde

Mode-matched (100) single crystal silicon ring gyroscope robust to fabrication errors

» [Mr. Shuya Okayama](#) , Dr. Amit Banerjee , Dr. Jun Hirotsu , Prof. Toshiyuki Tsuchiya

Microfabrication of double proof-mass SOI-based matryoshka-like structures for 3-axis MEMS accelerometers

» [Ms. Inês S. Garcia](#) , Dr. José Fernandes , Mr. José B. Queiroz , Dr. Carlos Calaza , Mr. José Moreira , Dr. Rosana A. Dias , Dr. Filipe S. Alves

Fluid Mediated Non-Linearity Switching in 2D Piezo MEMS Resonators

» [Mr. Sri Harsha Paladugu](#) , Dr. Priyanka Singh , Prof. Annapoorni Rangarajan , Prof. Rudra Pratap



Continued from **Wednesday, 21 September**

15:30

Oral : T4-F-WeA

Oral Track 4 - Session F - Organs and cells on chip 1 - 60min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Dr. Armin Knoll and Prof. Thomas Laurell

TRACK INVITED - Biomedical microdevices enabled by microfluidic technology

» Dr. Jelle Sleeboom , Ms. Emma Moonen , Ms. Inês Pereira , [Prof. Jaap den Toonder](#)

2.5D and 3D engineered micro- and nano-structures fostering a ramified resting phenotype in primary microglia

» [Mr. Ahmed Sharaf](#) , Mr. Brian Roos , Ms. Raissa Timmerman , Dr. Gert-Jan Kremers , Dr. Jeffrey Bajramovic , Dr. Angelo Accardo

3D-Engineered Scaffolds to Study Microtubes and Subcellular Localization of Epidermal Growth Factor Receptor in Patient-derived Glioma Cells

» [Ms. Nastaran Barin](#) , Dr. Hayri Balcioglu , Ms. Iris de Heer , Mr. Maurice de Wit , Dr. Martine Lamfers , Dr. Pim French , Dr. Angelo Accardo

16:15

Oral : PESM-E-WeA

Oral PESM - Best PESM Paper - 15min

Venue - BMW5 - 129 seats (room 04.208)

Chaired by: Dr. Alexey Milenin and Ms. JuHyuck Chung and Ms. Julie Bannister

16:30

Poster : T2-P2-WeA

Poster Track 2 - Session 2

Venue - ALMA Cafeteria space - BOARDS TRACK 2

PFIB capabilities and potential for circuit edit and 3D integration at FBK - Poster T2-P2-WeA-001

» Dr. David Novel , [Dr. Evgeny Demenev](#) , Dr. Lorenza Ferrario

Bi-Directional MEMS Thermal Flow Sensor for Respiratory Applications - Poster T2-P2-WeA-002

» [Mrs. Shirin Azadi Kenari](#) , Dr. Remco Wiegerink , Prof. Joost Lötters

Fabrication of high-aspect-ratio α -Si pillar photonic crystal-coupled plasmonic waveguide for on-chip gas sensing - Poster T2-P2-WeA-003

» [Dr. Yanfen Zhai](#) , Dr. Florian Dubois , Dr. Dao Thang Duy , Ms. Jasmin Spettel , Dr. Takashi Sasaki , Dr. Reyhaneh Jannesari , Mr. Gerald Pühringer , Dr. Nikolai Andrianov , Dr. Lukas Vojkuvka , Dr. Clement Fleury , Dr. Cristina Consani , Mr. Gerald Stocker , Mr. Thomas Grille , Mr. Parviz Saeidi , Prof. Bernhard Jakoby , Dr. Mohssen Moridi , Dr. Andreas Tortschanoff

Mapping the surface wettability of IP-PDMS micro-hoodoo arrays fabricated by two-photon polymerization direct laser writing - Poster T2-P2-WeA-004

» Ms. Nina Szczotka , [Mr. Jesper Navne](#) , Mr. Mathias Adelmark , Dr. Ada-Ioana Bunea , Prof. Rafael Taboryski

An anatomically-shaped AlN flexible sensor for eye movement detection - Poster T2-P2-WeA-005

» [Mr. Lorenzo Marzano](#) , Dr. Lara Natta , Prof. Massimo De Vittorio

Development of micro-scale patterning process on B-stage epoxy molding compound film - Poster T2-P2-WeA-006

» Dr. Jun Sae Han , Mr. Chungmo Kang , Mr. Jae Hyeon Ahn , Mr. Jongkeun Sim , [Dr. Eun-Ii Gwak](#) , Dr. Tae-Jin Je , Dr. Doo-Sun Choi

Ultra-High Mechanical Strength and Thermal Stability of Electrodeposited Ni-B Alloys toward MEMS Micro-Components - Poster T2-P2-WeA-007

» [Mr. Yiming Jiang](#) , Prof. Chun-Yi Chen , Prof. Tomoyuki Kurioka , Prof. Daisuke Yamane , Mr. Masanori Mizoguchi , Mr. Osamu Kudo , Mr. Ryu Maeda , Prof. Masato Sone , Prof. Tso-Fu Mark Chang

Continued from **Wednesday, 21 September**

Electrical characterization of MEMS gyroscopes with fast frequency sweeps - Poster T2-P2-WeA-008

» [Prof. Jerome Juillard](#) , Mrs. Margot Morlans , Ms. Zalfa Jouni , Dr. Jorge Ayala , Dr. Erwan Libessart , Dr. Laurent Bourgois , Dr. Jean Guerard , Dr. Raphael Levy , [Dr. Alexis Brenes](#) , Prof. Elie Lefeuvre

Feedthrough Effect Suppressing for Thermally Actuated Piezoresistive MEMS Resonator via Covering Metal - Poster T2-P2-WeA-009

» [Prof. Erwin Peiner](#) , Mr. Zhenjun Wang , [Dr. Jiushuai Xu](#) , Prof. Ming Qin

Self-focusing nanomechanical sensors for high-throughput detection of single viruses and nanoparticles - Poster T2-P2-WeA-010

» [Mr. Mohammed Alkhaled](#) , [Mr. Batuhan E. Kaynak](#) , Mr. Tufan Erdogan , Dr. Hashim Alhmoud , Dr. Hadi S. Pisheh , Mr. Mehmet Kelleci , Dr. Ilbey Karakurt , Mr. Cenk Yanik , Ms. Z. Betul Sen , Mr. Burak Sari , Mr. Ahmet M. Yagci , Dr. Aykut Ozkul , Dr. M. Selim Hanay

Enhancing the sensitivity of SAW sensors using the diamond surface phononic metamaterials - Poster T2-P2-WeA-011

» [Mr. Axel Leschiutta](#) , Mrs. Lucie Drbohlavová , Mr. Taylor Taylor , Prof. Olivier Boumatar , Dr. Vincent Mortet , Prof. Abdelkrim Talbi , Dr. Ghizlane Boussatour

Flexible Hybrid Sensor System Assembled with Nanocontacts - Poster T2-P2-WeA-012

» [Ms. Ulrike Passlack](#) , Mr. Cor Scherjon , Dr. Björn Albrecht , Mr. Florian Weißenborn , Dr. Christine Harendt , Prof. Joachim N. Burghartz

Large area stackable silicon skins for the fabrication of rSOCs - Poster T2-P2-WeA-013

» [Dr. Marta Fernández-Regúlez](#) , Dr. Iñigo Martín-Fernández , Dr. Marc Salleras , Mr. Alex Rodriguez-Iglesias , Dr. Joaquín Santander , Dr. Luis Fonseca

Liquid metal hydraulics for soft, bending micro actuation - Poster T2-P2-WeA-014

» [Mr. Filip Selenius Larsson](#) , [Mr. Oskar Hellman](#) , Mr. Seung Hee Jeong , Prof. Klas Hjort

RF Electronic conditioning for dynamic strain measurement using SAW resonator sensor - Poster T2-P2-WeA-015

» [Mr. MARBOUH OTHMANE](#) , Dr. ghizlane boussatour , Dr. Dusch Yannick , Dr. Aurélien Mazzamurro , Dr. Vincent Maurice , Prof. Philippe Pernod , Prof. Bou matar-lacaze olivier , Prof. BENABOU Abdelkader , Prof. Talbi Abdelkrim

Energy-efficient drop-wise condensation on superhydrophobic hierarchical metallic surfaces: Increasing the heat transfer coefficient during steam condensation - Poster T2-P2-WeA-016

» Mr. Panagiotis Sarkiris , [Dr. Kosmas Ellinas](#) , Dr. Vassilios Constantoudis , Prof. John Anagnostopoulos , Dr. Cheuk Wing Edmond Lam , Dr. Athanasios Milionis , Prof. Dimos Poulikakos , [Dr. Evangelos Gogolides](#)

SAW resonator based MEMS gas sensor for the detection of volatile organic compounds - Poster T2-P2-WeA-017

» [Mr. Mohand Salah Moussa](#) , Dr. Cecile Ghouila , Dr. Vincent Maurice , Dr. ghizlane boussatour , Mr. MARBOUH OTHMANE , Dr. Hatem Dahmani , Dr. Aurélien Mazzamurro , Prof. Philippe Pernod , Prof. Abdelkrim Talbi

MEMS-integratable area-selective fabrication and characterization of vertically aligned ZnO nanowires for energy harvesting application - Poster T2-P2-WeA-018

» [Dr. Jiushuai Xu](#) , Dr. Markys Cain , Dr. Zhi Li , Dr. Uwe Brand , Ms. Defang Li , Prof. Jinying Zhang , [Prof. Erwin Peiner](#)

Axial p-n junction photo-detectors based on a single germanium nanowire - Poster T2-P2-WeA-019

» [Mr. Ahmad Echresh](#) , Mr. Mohd Saif Shaikh , Dr. Himani Arora , Dr. Artur Erbe , Dr. Lars Rebohle , Dr. Yordan M. Georgiev



Continued from **Wednesday, 21 September**

Low-noise capacitive readout circuit for pull-in MEMS accelerometers - Poster T2-P2-WeA-020

» Mr. Abdelrahman M. Elhawash , Ms. Inês S. Garcia , Dr. Jorge Cabral , Mr. Tiago Hormigo , Dr. João T. da Encarnação , Dr. Rosana A. Dias , Dr. Filipe S. Alves

Process optimisation for high electron mobility silicon thin films by spectroscopic ellipsometry analysis - Poster T2-P2-WeA-021

» Ms. Sarah Emily Beck , Mr. Daniel Staudt , Mr. Philipp Czyba , Prof. Stefan Tappertzhofen

Additive Microfabrication for Advanced Packaging and System Integration - Poster T2-P2-WeA-022

» Dr. Aneta Wiatrowska , Dr. Piotr Kowalczewski , Dr. Karolina Fiaczyk , Mr. Lukasz Witczak , Ms. Jolanta Gadzalinska , Dr. Ludovic Schneider , Mr. Mateusz Lysien , Mr. Lukasz Kosior , Dr. Filip Granek , Ms. Kamelia Duczmal

Simulation of microparticle behavior by dielectrophoretic effect on micropatterned surface with embedded metal line - Poster T2-P2-WeA-023

» Mr. JAEMIN LEE , Prof. Young Tae Cho , Prof. Seok Kim

Wafer-level packaging platform for high optical transparency and vacuum level - Poster T2-P2-WeA-024

» Mr. Tae Hyun Kim , Mr. Sang Wug Han , Mr. Ju Bum Lee , Ms. Yeeun Na , Dr. Joontaek Jung , Dr. Chung Mo Yang , Dr. Jae Sub Oh , Mr. Dae Won Hong , Dr. Tobias Wernicke , Dr. Hee Yeoun Kim

MEMS device for calorimetry of electrochemical reactions - Poster T2-P2-WeA-025

» Mrs. Julia Pruchnik , Dr. Tomasz Piasecki , Mr. Bartosz Pruchnik , Dr. Piotr Prokaryn , Mr. Rafał Dobrowolski , Dr. Andrzej Sierakowski , Prof. Teodor Gotszalk

Effect of porous Si interlayer under Au catalyst on the metal-assisted etching of Si substrate - Poster T2-P2-WeA-026

» Mr. Kyosuke Murata , Mr. Takuya Yorioka , Mr. Naoya Shiraiwa , Prof. Takeshi Ito , Prof. Shoso Shingubara , Prof. Tomohiro Shimizu

Towards 3D Ice Lithography for Nanoscale 3D Printing - Poster T2-P2-WeA-027

» Mr. Affan Waafi , Mr. Joachim Lyngholm-Kjærby , Dr. Rubaiyet Haque , Dr. Hoa T Le , Dr. Giuliano Bissaco , Prof. Anpan Han

Approaches for flexible piezoelectric pressure sensors inkjet-printed on Kapton and PVDF - Poster T2-P2-WeA-028

» Mr. Matthias Paul , Mr. Christoph Mehofer , Mr. Markus Wellenzohn

Nanostructuring approaches for Au SERS sensors: periodic and statistically distributed texturing of surfaces - Poster T2-P2-WeA-029

» Ms. Desislava Daskalova , Mr. Mustafa Sercan Özyurt , Mr. Bartos Chmielak , Dr. Ulrich Plachetka , Prof. Max Lemme

Electromechanical Design and Fabrication of a Multiscale NEMS Traction Force Sensor - Poster T2-P2-WeA-030

» Dr. Mehrdad Karimzadehkhoei , Mr. Masoud Jedari Ghourichaei , Mr. Alp Timucin Toymus , Dr. Onur Aydin , Mr. Bekir Aksoy , Mr. Cemal Aydogan , Mr. Gokhan Nadar , Prof. Ivo Rangelow , Prof. Arda D. Yalcinkaya , Dr. Levent Beker , Prof. Halil Bayraktar , Prof. B. Erdem Alaca

Control of sputtered VO₂ thin films grain size through O₂ concentration - Poster T2-P2-WeA-031

» Ms. Noémie Bidoul , Dr. Benjamin Huet , Dr. Ferran Ureña-Begara , Prof. Jean-Pierre Raskin , Prof. Denis Flandre

Exploring the material freedom in near-field electrospinning - Poster T2-P2-WeA-032

» Ms. Ahsana Sadaf , Mr. Maximilian Elter , Dr. Dario Mager , Prof. Uwe H.F. Bunz , Dr. Monsur Islam , Prof. Jan Gerrit Korvink



Continued from **Wednesday, 21 September**

Gas flow rate dependent frequency shifts in Suspended Microchannel Resonator and its fabrication using thermo-compression wafer bonding - Poster T2-P2-WeA-033

» [Mr. Samridh Sharma](#) , Prof. Saurabh Chandorkar

Flight-testing of MEMS thermal sensors designed for wall shear stress measurement on a microlight aircraft - Poster T2-P2-WeA-034

» [Mr. Thomas Arnoult](#) , Dr. Aurélien Mazzamurro , Dr. Cecile Ghouila , Dr. romain viard , Mr. Damien Teillet , Ms. Emma Palfi , Dr. Eric Garnier , Prof. Abdelkrim Talbi , Prof. Philippe Pernod

Dynamic behaviour of flexible nanoparticle strain sensors based on a cracked alumina thin film - Poster T2-P2-WeA-035

» Dr. Evangelos Aslanidis , Mr. Savvas Sarigiannidis , Dr. Evangelos Skotadis , [Prof. Dimitris Tsoukalas](#)

“Flow-through” ALD for conformal coating of centimeter-long polymer microchannels - Poster T2-P2-WeA-036

» [Mr. Manuel Müller](#) , [Mr. Jeremy Teuber](#) , Mr. Rukan Nasri , Dr. Robert Zierold , Dr. Irene Fernandez-Cuesta

Electrochemical control of acidity in miniaturized area, a first step towards peptide synthesis for personalized medical applications - Poster T2-P2-WeA-037

» [Dr. Janwa EL MAISS](#) , Dr. Divya BALAKRISHNAN , Dr. Cesar Pascual Garcia

Control of MoS₂ humidity sensor response by a hydrochloric acid surface treatment - Poster T2-P2-WeA-038

» [Ms. Maria Kainourgiaki](#) , Dr. Menelaos Tsigkourakos , Dr. Evangelos Skotadis , Dr. Evangelos Aslanidis , Prof. Dimitris Tsoukalas

Piezoresistive Textile Integrated Stretchable Breath Sensor - Poster T2-P2-WeA-039

» [Dr. Pavel Kulha](#) , Mr. Maximilian Scherf , Mr. Upamanyu Chatterjee , Dr. Georgios Kokkinis , Dr. Rudolf Heer

Ultra-miniature Pressure Sensor Packaging for Guidewires - Poster T2-P2-WeA-040

» [Prof. Woo-Tae Park](#) , Mr. Dong-hyun Joo , Mr. Chaowei Dong , Mr. Kijeong Moon , Mr. Seyeon Yoon , Dr. Jin-Ho Choi

Semiconductor Manufacturing Yield Prediction Framework Based on Fabrication Data - Poster T2-P2-WeA-041

» [Ms. Youjin Lee](#) , Ms. Eun-mi Park , Prof. Yonghan Roh

(Bio)functionalized Suspended Devices for Sensing - Poster T2-P2-WeA-042

» [Dr. Juan Pablo Aguil](#) , Dr. María Isabel Arjona , Mrs. Marta Duch Lobera , Prof. José A. Plaza

Novel Piezoelectric MOEMS Platform - Poster T2-P2-WeA-043

» [Dr. Anton Lagosh](#) , Dr. Yanfen Zhai , Dr. Sarah Risquez , Dr. Annalisa De Pastina , Dr. Nikolai Andrianov , Dr. Lukas Vojkuvka , Dr. Jaka Pribošek , Dr. Adrien Piot , Dr. Mohssen Moridi

In situ roughening of gold microelectrodes for increased bandwidth of single cell impedance biosensors - Poster T2-P2-WeA-044

» [Mr. Ruben Van den Eeckhoudt](#) , Mrs. Nurul Izni Rusli , Prof. Nico Boon , Prof. Filip Tavernier , Prof. Irene Taurino , Prof. Michael Kraft

Embeddable Multi-Sensor Node for Monitoring Resin Curing in Fibre Composites - Poster T2-P2-WeA-045

» [Mr. Korbinian Rager](#) , Mr. Alexander Kyriazis , Prof. Michael Sinapius , Prof. Andreas Dietzel

Silicon dry etching for quantum technology - Poster T2-P2-WeA-046

» [Dr. Zhong Ren](#)

A Simple Process to Embed Carbon Nanotubes into DLP Resins for 3D Printing of Conductive Structures - Poster T2-P2-WeA-047

» [Ms. Wiebke Gehlken](#) , Mr. Sebastian Fischer , Mr. Tim de Rijk , Prof. Michael Vellekoop



Continued from **Wednesday, 21 September**

Integration of CO2 supercritical-dried silica aerogel on silicon chips - Poster T2-P2-WeA-048

» [Ms. Ana Luiza Silveira Fiates](#) , Prof. Michael Vellekoop

Non-Invasive Smart and Portable Fat Burning Evaluation Platform Based on Exhaled Breath Monitoring - Poster T2-P2-WeA-049

» [Dr. Junyeong Lee](#) , Dr. Hyung-Kun Lee , Dr. Minji Sohn , Prof. Soo Lim , Dr. Dae-Sik Lee

Deterministic growth of semiconducting MoS2 nano-patterns via thermal - Scanning Probe Lithography (t-SPL) - Poster T2-P2-WeA-050

» Mr. Giorgio Zambito , [Mr. Matteo Gardella](#) , Dr. Maria Caterina Giordano , Prof. Francesco Buatier de Mongeot

Properties of Multi Functional Fluid Filter Consisting of Micro Capillary Bundle - Poster T2-P2-WeA-051

» Prof. Yuichi Utsumi , [Ms. mana honkawa](#) , Mr. Masatoshi Takahashi , Dr. Sho Amano , Prof. Akinobu Yamaguchi , Prof. Masahiro Takeo , Dr. Tsunemasa Saiki

Electrostatically actuated, monolithic micropump with an extremely small footprint - Poster T2-P2-WeA-052

» [Mr. Martin Seidl](#) , Prof. Gabriele Schrag , Dr. David Tumpold , Dr. Wolfgang Klein

Interfacial defect characterization at the metal oxide semiconductor (MOS) interface: a review of best practices for the quantum community - Poster T2-P2-WeA-053

» [Dr. David Michalak](#) , Dr. Eric Henry , Dr. James Clarke

Comparison of commercial systems for two-photon polymerization direct laser writing - Poster T2-P2-WeA-054

» [Mr. Federico Cantoni](#) , Mr. Laurent Barbe , Ms. Maria Tenje , Dr. Ada-Ioana Bunea

A microfluidic glucose biosensor based on self-assembled immobilized enzyme and electrodeposited chitosan - Poster T2-P2-WeA-055

» [Mr. zongyuan Li](#) , Dr. yubo Huang , Prof. zhuqing Wang

Extreme ultraviolet spectrometry for the characterization of nanoscale latent images in photoresists created during the lithographic process - Poster T2-P2-WeA-056

» [Ms. Sophia Schröder](#) , Mr. Sven Glabisch , Dr. Sascha Brose , Dr. Serhiy Danylyuk , Dr. Jochen Stollenwerk , Prof. Carlo Holly

Extreme ultraviolet high intensity exposure setup for irradiation and degradation studies - Poster T2-P2-WeA-057

» [Mr. Ismael Gisch](#) , Dr. Sascha Brose , Dr. Serhiy Danylyuk , Dr. Jochen Stollenwerk , Prof. Carlo Holly

High optical contrast nanoimprinted Speckle pattern for digital image correlation imaging - Poster T2-P2-WeA-058

» Ms. Elif Cansu Kursun , Dr. Shraddha Supreeti , Dr. Koenraad Freytag , [Dr. Helmut Schiff](#) , Prof. Philippe Spätig

Exfoliation of monolayer two dimensional materials by polyvinyl alcohol foil lamination - Poster T2-P2-WeA-059

» [Mr. Cheng Xiang](#) , Dr. Abhay Shivayogimath , Dr. Manh-ha Doan , Dr. Yingqiu Zhou , Dr. Moritz Fischer , Mr. Leonid Iliushyn , Prof. Nicolas Stenger , Prof. Peter Bøggild , Prof. Timothy J. Booth

Nanostructured surfaces for contactless structural monitoring - Poster T2-P2-WeA-060

» [Dr. Javier Bravo Larrea](#) , Ms. Esther Basarte , Mr. Julio Peña , Mr. Javier Jiménez

Robust Closed-loop Control of a Piezoelectrically Driven Micro-lens Actuator - Poster T2-P2-WeA-061

» Mr. Syed Mamun R Rasid , [Dr. Aron Michael](#) , Prof. Hemanshu Roy Pota , Dr. Ssu-han Chen



Continued from **Wednesday, 21 September**

16:30

Poster : T1-P2-WeA

Poster Track 1 - Session 2

Venue - Hall O&N II (room 04.298) - BOARDS TRACK 1

Chaired by: Dr. Silvia Armini

A new algorithm for fast prototyping thin-film bulk acoustic wave resonators - Poster T1-P2-WeA-037

» [Mr. Giovanni Niro](#) , Ms. Ilaria Marasco , Dr. Francesco Rizzi , Prof. Antonella D'Orazio , Prof. Marco Grande , Prof. Massimo De Vittorio

Top-Down Fabrication of Vertical Nanostructured Channel Arrays on SiGe for Future Nanoelectronics Applications - Poster T1-P2-WeA-038

» [Dr. Jonas Müller](#) , Dr. Aurélie Lecestre , Dr. Rémi Demoulin , Dr. Filadelfo Cristiano , Dr. Jean-Michel Hartmann , Dr. Guilhem Larrieu

Methodology for the study of thermal nanoimprint lithography induced deformation - Poster T1-P2-WeA-039

» [Mr. Leopold Boudier](#) , [Dr. Emmanuelle Daran](#) , Dr. Olivier Gauthier-Lafaye , Mr. Franck Carcenac , Dr. Colette Turbil , Dr. Valentin Gaté , Mr. Daniel Turover

Multimode Optical Polymer Waveguides Fabricated by R2P Nanoimprinting for Optical Interconnection - Poster T1-P2-WeA-040

» [Dr. Pavel Kulha](#) , Prof. Václav Prajzler , Mr. Vaclav Chlupaty , Mr. Milos Neruda , Ms. Sonja Kopp , Dr. Michael Muehlberger

Enhanced SEM metrology for R&D at the nanometer scale - Poster T1-P2-WeA-041

» [Ms. Giovanna Capraro](#) , Dr. Jens Bolten , Dr. Thorsten Wahlbrink , Mr. Xinchang Zou , Dr. Klemens Reuther , Dr. Sven Bauerdick , Prof. Max Lemme

One-step fabrication of submicron/nanowires from SOI substrates by optimized proximity UV lithography - Poster T1-P2-WeA-042

» [Mrs. olfa karker](#) , Prof. Konstantinos Zekentes , Dr. Aude Bouchard , Dr. Isabelle Gelard , Dr. Valerie Stambouli , Prof. Edwige Bano

The most undervalued variable that establishes the MoS2 yield for nano and microstructures in a hydro/solvo thermal synthesis - Poster T1-P2-WeA-044

» [Mrs. Wendy Martinez](#) , Dr. Gregorio Carbajal , Dr. Orfill Gonzalez-Reynoso , Prof. Barbara Cortese , Prof. Mario Garcia

Design and fabrication of piezoelectric actuator for in-plane motion and sensing - Poster T1-P2-WeA-045

» [Ms. Kristina Bepalova](#) , Dr. Jaswant Singh Rathore , Mr. Tarmo Nieminen , Ms. Heli Seppänen , Dr. Victor Ovchinnikov , Dr. Glenn Ross , Prof. Mervi Paulasto-Kröckel

Life-time evaluation of low concentration release agent treatment of replica mold on ultraviolet nanoimprint lithography - Poster T1-P2-WeA-046

» [Mr. Tomohito Wakasa](#) , Prof. Jun Taniguchi

Fabrication of adhesive water-repellent film using moth-eye structure mold and photolithography - Poster T1-P2-WeA-047

» [Mr. Kazuki Arai](#) , Mr. Hiroyuki Sugawara , Prof. Jun Taniguchi

Nano-patterning of 2D materials by block copolymer self-assembly - Poster T1-P2-WeA-048

» [Ms. Christina Breth Nielsen](#) , Prof. Kristoffer Almdal , Prof. Timothy J. Booth

Femtosecond Laser Produced Hydrophobic Surface on Zr-based Metallic Glasses - Poster T1-P2-WeA-049

» [Mr. Hao-Cheng Luan](#) , Prof. Chia-Hung Hung

Fabrication of bridge structure using negative resist and electron beam lithography for investigation of transfer property on nanoimprint lithography - Poster T1-P2-WeA-050

» [Mr. Yusuke Murakami](#) , Prof. Jun Taniguchi



Continued from **Wednesday, 21 September**

Developing A New Plasma-based Recipe to Selectively Dry Etched of p-GaN/InAlN Heterostructures for E-mode HEMT Operations - Poster T1-P2-WeA-051

» [Dr. AHMET TOPRAK](#), Mr. Dogan Yilmaz, Prof. Ekmel Ozbay

Impact of process parameters on low temperature plasma-based oxidation for novel manufacturing techniques - Poster T1-P2-WeA-052

» [Mr. Gildas Ouin](#), Mr. Jeyta Sahay, Dr. Li Hou, Ms. I-Chi Lin, Mr. Vijay Vaniapura, [Mr. Jérôme Favier](#)

Robust sub-100 nm T-gate fabrication process using multi-step development - Poster T1-P2-WeA-053

» [Mr. Kaivan Karami](#)

Poisson Effect-Assisted Replication Lithography for Repetitive 3D Micropatterning - Poster T1-P2-WeA-054

» Dr. Minsu Kim, Mr. Dokyung Kyeong, Prof. Cheol-Woo Park, [Prof. Moon Kyu Kwak](#)

Comparison of a MEMS dc electric field sensor based on silicon and polyimide substrates - Poster T1-P2-WeA-055

» [Dr. Tao Chen](#), Prof. Cyrus Shafai

Reduction of Pattern Width in Tunable Reverse Offset Printing Process Using Stretchable Blanket - Poster T1-P2-WeA-056

» [Mr. Seungwoo Shin](#), Prof. Seok Kim, Prof. Young Tae Cho

Improvement of optical and electrical properties of nanopatterned Ag Nanowire coated Transparent substrate - Poster T1-P2-WeA-057

» Ms. YEONJOO HA, [Dr. Jaelong Lee](#), Mr. SungHwi Lee

CO2 ice lithography - Poster T1-P2-WeA-058

» [Prof. Anpan Han](#), Dr. Hoa T Le, Dr. Rubaiyet Haque, Mr. Affan Waafi

Fabrication of carbon micro molds by carbonization of epoxy resists made by direct laser lithography - Poster T1-P2-WeA-059

» [Dr. Muhammad Refatul Haq](#), [Dr. Helmut Schift](#)

EOS 72 - High-sensitivity, chemically amplified e-beam resist with excellent alkali stability - Poster T1-P2-WeA-060

» [Dr. Mandy Sendel](#), Dr. Maik Gerngroß, Mr. Harry Biller, Mr. Matthias Schirmer

Liquid crystalline elastomer photoresists for the two-photon polymerization micro 3D printing of soft microrobots - Poster T1-P2-WeA-061

» Mr. Bilal Rashid Hanif, Dr. Daniele Martella, Dr. Sara Nocentini, Dr. Camilla Parmeggiani, Prof. Rafael Taboryski, Prof. Diederik Wiersma, [Dr. Ada-loana Bunea](#)

Determination of the piezoelectric d33 coefficient for MIS type aluminum nitride thin films - Poster T1-P2-WeA-062

» [Mr. Dennis Becker](#), Dr. Achim Bittner, Prof. Alfons Dehé

Low-Pressure hard UV-nanoimprint lithography for structure fabrication in mm to nm-range - Poster T1-P2-WeA-063

» [Ms. Parastoo Salimitari](#), Dr. Christoph Weigel, Prof. Steffen Strehle

Fabrication of double-sided microlens arrays using nanoimprint lithography with optical alignment units - Poster T1-P2-WeA-064

» Dr. NARAE JO, Dr. Hakjong choi, Dr. Hyungjun Lim, [Dr. Jaelong Lee](#)

The method of fabrication for reliable and reproducible laterally AlGaIn/GaN FinFET on SiC - Poster T1-P2-WeA-065

» [Mr. Dogan Yilmaz](#), Mr. Gurur Salkim, Mr. Mehmet Taha Haliloğlu, Mr. Yıldırım Durmus, Prof. Ekmel Ozbay, Prof. Semsettin Altındal

Tip-based nanofabrication down to 40 nm combined with a nanopositioning machine with a range of motion of \varnothing 100 mm - Poster T1-P2-WeA-066

» [Ms. Jaqueline Stauffenberg](#), Mr. Michael Reibe, Ms. Anja Kroetschl, Mr. Christoph Reuter, Dr. Ingo Ortlepp, Dr. Denis Dontsov, Mr. Enrico Langlotz, Mr. Mathias Holz, Prof. Ivo Rangelow, Prof. Steffen Strehle, Prof. Eberhard Manske

Continued from **Wednesday, 21 September**

Sub-Wavelength Optical Functionalities Directly Imprinted on Chalcogenide Glasses - Poster T1-P2-WeA-067

» [Mrs. Sivan Tzadka](#) , Prof. Mark Schwartzman

Novel FIB nanofabrication strategies facilitated by light and heavy ions from GaBiLi Liquid Metal Alloy Ion Sources - Poster T1-P2-WeA-068

» [Mr. Torsten Richter](#) , Dr. Paul Mazarov , Dr. Lars Bruchhaus , [Dr. Achim Nadzeyka](#) , Mr. Fabian Meyer

H radical for surface treatment applications - Poster T1-P2-WeA-069

» [Dr. Ting Xie](#) , [Mr. Marcus Lampart](#) , Dr. Haichun Yang

16:30

Poster : T4-P2-WeA

Poster Track 4 - Session 2

Venue - Hall O&N I (room 04.496) - BOARDS TRACK 4

Towards a systematic calibration and on-board processing of low-cost MOS CH4 sensors for environmental applications - Poster T4-P2-WeA-039

» [Dr. Guillem Domènech-Gil](#) , Dr. Henrique O. Sawakuchi , Dr. Thanh Duc Nguyen , Prof. David Bastviken

A Unique Low Aspect Ratio Lamination Mixer (LARLM) for Continuous Lipid Nanoparticle Production - Poster T4-P2-WeA-040

» [Mr. Ebrahim Taedinejad](#) , Dr. cornelius Bausch , Mr. Peer Erfle , Ms. Donya Darwish , Dr. Michael Bassler , Prof. Andreas Dietzel

UV Nanoimprint Lithography Replicated High Aspect Ratio Nanopillars - Poster T4-P2-WeA-041

» Mr. Oliver Maier , [Dr. Michael Haslinger](#) , Dr. Michael Muehlberger , Ms. Sonja Kopp , Mr. Markus Pribyl , Mr. Philipp Taus , Prof. Heinz D. Wanzenboeck , Dr. Elena Guillen

A micromanufactured porous solid phase for nucleic acid purification - Poster T4-P2-WeA-042

» [Dr. Ole Behrmann](#) , Dr. Thomas Lisec , Dr. Eric Nebling , Dr. Lars Blohm , Dr. Jörg Eichholz , Mr. Steffen Krämer , Ms. Sabina Schaal , Dr. Nils Rutschke , Dr. Björn Gojdka

Disposable SARS-CoV-2 sensor using loop mediated isothermal amplification and electrochemical detection - Poster T4-P2-WeA-043

» Ms. Ane Rivas , Dr. Unai Eletxigerra , Dr. Ruth Diez , [Dr. Santos Merino](#) , Dr. Felipe Goñi , Dr. Garbiñe Olabarria

Label-free detection of miRNAs using a SERS-based microfluidic chip - Poster T4-P2-WeA-044

» [Dr. Alessandro Chiado'](#) , Dr. Sofia Bertone , Dr. Daniel Montesi , Dr. Chiara Novara , Dr. Francesca Orso , Dr. Niccolò Paccotti , Prof. Francesco Geobaldo , Prof. Gerolama Condorelli , Prof. Vittorio De Franciscis , Dr. Paola Rivolo , Prof. Daniela Taverna , Prof. Fabrizio Giorgis

Fabrication of metal and polymer biomimetic nanostructures replicating extracellular matrix biomolecules with nanoimprint lithography - Poster T4-P2-WeA-045

» [Mr. Bharat nath Nowduri](#) , Dr. Dominique Decker , Mr. Steven Schulte , Prof. Karl-Herbert Schaefer , Prof. Monika Saumer

Optimization and Characterization of Iridium Oxide Microelectrodes for High-Resolution Stimulation of the Visual Cortex - Poster T4-P2-WeA-046

» [Mr. Maarten Schelles](#) , [Mr. Laurens Goyvaerts](#) , Dr. Frederik Ceyskens , Prof. Michael Kraft

Fabrication of ZnO thin films for sensing of CO2 in small quantities at room temperature - Poster T4-P2-WeA-047

» Mrs. Marina Stramarkou , Mr. Achilleas Bardakas , Dr. Magdalini Krokida , [Dr. Christos Tsamis](#)



Continued from **Wednesday, 21 September**

Lithographic patterning of 25nm nanopores in low capacitance membranes - Poster T4-P2-WeA-048

» [Mr. Jacobus Delport](#), Mr. Bert Du Bois, Mr. Ashesh Ray Chaudhuri, Dr. Kherim Willems, Dr. Koen Martens, Dr. Sanjin Marion, Dr. Simone Severi, Prof. Pol Van Dorpe

Replication and functionalization of nanoneedles utilizing NIL and nanofabrication techniques - Poster T4-P2-WeA-049

» Mr. Markus Pribyl, Mr. Philipp Taus, Ms. Sonja Kopp, Dr. Michael Haslinger, Mr. Oliver Maier, [Dr. Michael Muehlberger](#), Prof. Heinz D. Wanzenboeck

Micro-/Nanostructured Substrates for the Growth of Cardiomyocyte Fibers made by Nanoimprintlithography - Poster T4-P2-WeA-050

» [Dr. Michael Muehlberger](#), Ms. Sonja Kopp, Ms. Alison Deyett, Mr. Markus Pribyl, Dr. Michael Haslinger, Ms. Anica Siegel, Mr. Philipp Taus, Dr. Elena Guillen, Ms. Aranza Torres Caballero, Mr. Bozhidar Baltov, Mr. Leif Yde, Mr. Jan Stensborg, Dr. Sasha Mendjan, Prof. Steffen Hering, Prof. Heinz D. Wanzenboeck

A microfluidic magnetohydrodynamic pump based on a thermally bonded composite of glass and dry film photoresist - Poster T4-P2-WeA-051

» [Mr. Raschid Azizy](#), Mr. Henning Otto, Dr. Jörg König, Mr. David Schreier, Dr. Christoph Weigel, Prof. Christian Cierpka, Prof. Steffen Strehle

Sarcopenia Evaluation by using surface EMG-Based Platform with Supervised Classification - Poster T4-P2-WeA-052

» [Dr. Andrea Manni](#), Dr. Gabriele Rescio, Dr. Andrea Caroppo, Dr. Pietro Siciliano, Dr. Alessandro Leone

Non-Faradaic Electrochemical Impedance based Bacteria Sensing using Functionalized Microfabricated Interdigitated Electrodes - Poster T4-P2-WeA-053

» Ms. Rhea Patel, Dr. Madhuri Vinchurkar, Dr. Rajul Patkar, Dr. Tejas Naik, Mr. Andrea Adami, Mr. Flavio Giacomozzi, Dr. Bidhan Pramanick, Dr. Raman Ramesh, [Prof. Leandro Lorenzelli](#), Prof. Maryam Shojaei Baghini

A three dimensional nanogross electrochemical sensor to monitor plant hormone - cytokinin - Poster T4-P2-WeA-054

» [Mr. Buddhadev Purohit](#), Mr. Efstathios Deskoulidis, Mrs. Neeti Kalyani, Mr. Christian Vinther Bertelsen, Prof. Winnie Edith Svendsen

Micro-coil Probes for Magnetic Stimulation of Brain Tissue - Poster T4-P2-WeA-055

» [Mr. Xiyuan Liu](#), Dr. Andrew Whalen, Prof. Tianbo Yu, Prof. Fried Shelley, [Prof. Anpan Han](#)

Sensors and Activating System for Life Support in Nanosatellites Missions - Poster T4-P2-WeA-056

» Ms. Adrianna Graja, Dr. Patrycja Śniadek, Mr. Bartosz Kawa, Dr. Agnieszka Podwin, Mr. Marcin Białas, Prof. Jan Dziuban, [Prof. Rafał Walczak](#)

Surface-enhanced Raman scattering (SERS)-on-a-chip for ultrasensitive detection of silver nanoparticles in seawater - Poster T4-P2-WeA-057

» [Ms. Monica Quarato](#), Dr. Marilia Barreiros dos Santos, Ms. Ecem Tiryaki, Prof. Miguel A. Correa-Duarte, Dr. Begoña Espiña, Dr. Laura Rodriguez-Lorenzo

Protein-enabled control of photoresponse in individual carbon nanotube phototransistors - Poster T4-P2-WeA-058

» [Dr. Ivan Bobrinetskiy](#), Mr. Nikita Nekrasov, Dr. Aleksei Emelianov

Nano-imprint lithographic replication of natural functional surface structures for microfluidic application - Poster T4-P2-WeA-059

» [Dr. Christoph Weigel](#), Ms. Anja Krötschl, Mr. Jakob Nüßlein, Prof. Steffen Strehle



Continued from **Wednesday, 21 September**

Antifouling coating based on dopamine and sulfobetaine for neuromodulation implants - Poster T4-P2-WeA-060

» [Mr. Iolan Wellens](#), Dr. Tristan Putzeys, Dr. Olivier Deschaume, Prof. Nicolas Verhaert, Prof. Carmen Bartic

Microwell arrays for long-term confinement and single-cell tracking of phenotypic changes in vascular cell populations - Poster T4-P2-WeA-061

» [Ms. Ellis Smith](#), Dr. Michele Zagnoni, Dr. Mairi Sandison

Novel nanostructured antimicrobial surface for dental implant applications - Poster T4-P2-WeA-062

» Mr. Yuxuan Zhang, Dr. Frederik Hein Petersen, Mr. Amirali Abbaspourmani, Prof. Paul Michael Petersen, [Prof. Yiyu Ou](#)

Microengineered Leukemia-on-a-Chip Microphysiological System for Modelling Leukemia Chemotherapy - Poster T4-P2-WeA-063

» [Prof. Weiqiang Chen](#), Dr. Chao Ma

A novel dynamic acousto-optic lithographic patterning technique for bioprinting - Poster T4-P2-WeA-064

» [Ms. Rosemarie Ohanyan](#), Mr. Jokubas Stancikas, Mr. Pontus Stenström, Mr. Fredric Ihrén, Mr. Jakob Holm, Mr. Robert Eklund, Mr. Martin Glimtoft, Dr. Nur Ismail, Mrs. Louise Breideband, Mr. Levin Hafa, Mr. Sven Plath, Dr. Francesco Pampaloni, Dr. Gustaf Mårtensson

Boron nitride encapsulated graphene for biosensing - Poster T4-P2-WeA-065

» [Ms. Carole-Anne Lernoud](#), Dr. Jessica Bousquet, Dr. Lionel Rousseau, Prof. Vincent Bouchiat, Dr. Riadh Othmen, Prof. Blaise Yvert, Dr. Clément Hébert

Dual-mode Bioimaging Using Carbon Quantum Dot Decorated Rhodium Nanoparticles as Atoxic Contrast Agents - Poster T4-P2-WeA-066

» [Ms. Nuzhet Inci Kilic](#), Mr. Giovanni Marco Saladino, Ms. Bertha Brodin, Mr. Bejan Hamawandii, Dr. Idris Yazgan, Prof. Hans M. Hertz, Prof. Muhammet S. Toprak, Prof. Stefan Johansson

An unmanned genetic diagnosis system for continuous monitoring viruses in life space utilizing a rolled film microfluidic chip - Poster T4-P2-WeA-067

» [Dr. Kwang Hyo Chung](#), Dr. Yo Han Choi, Dr. Dong Kyu Lee, Dr. Chang-Geun Ahn, Dr. Han Young Yu

Flexible BioMEMS devices enabled by micromachining of plasma-polymerized fluorocarbon - Poster T4-P2-WeA-068

» [Dr. Bingdong Chang](#), Mr. Nicolas Bertram, Mr. Xiyuan Liu, Prof. Anpan Han

Viscoelastic Properties of Soft Materials Characterized by Ferrofluid Droplets - Poster T4-P2-WeA-069

» [Mr. Danyil Azarkh](#), Prof. Uwe Schnakenberg

An Open Microfluidic Design for Contact Angle Measurements - Poster T4-P2-WeA-070

» [Mrs. Tina Mitteramskogler](#), [Mr. Rafael Ecker](#), Mr. Philipp Ebner, Mr. Thomas Wilfinger, Dr. Andreas Tröls, Prof. Bernhard Jakoby, Prof. Robert Wille

Ultrasonic Microreactor for the synthesis of dye loaded Poly (D, L lactic-co-glycolic acid) Nanoparticles - Poster T4-P2-WeA-071

» [Mr. Aniket Udepurkar](#), Ms. Laura Mampaey, Prof. Christian Clasen, Prof. Víctor Sebastián Cabeza, Prof. Simon Kuhn

Development of Au nanoparticles-MnO₂ modified polyaniline electrodode for Non-Enzymatic Glucose Sensors - Poster T4-P2-WeA-072

» [Mr. Keisuke Okamoto](#), Mr. Hiroki kawakami, Mr. Yu-An Chien, Prof. Tomoyuki Kurioka, Prof. Wan-Ting Chiu, Dr. Parthojit chakraborty, Prof. Takamichi Nakamoto, Prof. Masato Sone, Prof. Tso-Fu Mark Chang



Continued from **Wednesday, 21 September**

3D engineered brain cancer microenvironments for proton radiobiology - Poster T4-P2-WeA-073

» [Mr. Qais Akolawala](#) , Dr. Marta Rovituso , Prof. Henri Versteeg , Dr. Araci Rondon , Dr. Angelo Accardo

Micro-structured scaffold membranes for retinal tissue bioengineering by two-photon lithography - Poster T4-P2-WeA-074

» [Dr. Frederic Hamouda](#) , Ms. Camille Geiger , Ms. Elise Herardot , Prof. Christelle Monville , Dr. Karim BEN M'BAREK , Dr. Dominique Decanini

Directing differentiation of stem cells using cell-imprinted culture platforms - Poster T4-P2-WeA-075

» Dr. Azadeh Hashemi , [Dr. Volker Nock](#)

Development of a microfluidic technology for blood lysis and particles sorting - Poster T4-P2-WeA-076

» [Mr. choayb omar](#) , Dr. Isabelle le potier , Dr. Anne-Marie Haghiri , Dr. jean gamby , Mr. Mehdi El Gorhi , Dr. Sylvie Bouttier , Mr. David Bouville

16:30

Poster : T3-P2-WeA

Poster Track 3 - Session 2

Venue - Foyer CAG (room 04.290) - BOARDS TRACK 3

Chaired by: Prof. Rob Ameloot

Improved CO gas sensing performance using ZnO nanobrushes decorated with MnZnO nanoparticles - Poster T3-P2-WeA_049

» [Ms. So-Young Bak](#) , Mr. Se-Hyeong Lee , Prof. Moonsuk Yi

Competing Interactions, and magnetization dynamics in Doped Rare-earth Manganites nanostructural system - Poster T3-P2-WeA_050

» [Prof. Wiqar Hussain Shah](#)

Digitally controlled microcantilever for high-frequency sensing of elastic and/or viscous modulus of non-Newtonian fluids - Poster T3-P2-WeA_051

» [Dr. Joao Mouro](#) , Dr. Paolo Paoletti , Dr. Marco Sartore , Dr. Massimo Vassali , Dr. Bruno Tiribilli

A low-cost fingerprint sensor for estimating diffusive properties of liquids based on laminar mixing in y-microchannels - Poster T3-P2-WeA_052

» [Dr. Andreas Tröls](#) , Mrs. Tina Mitteramskogler , Mr. Andreas Fuchsluger , Prof. Robert Wille , Prof. Bernhard Jakoby

Warping Characteristics of Gold Proof Mass in MEMS Capacitive Accelerometer - Poster T3-P2-WeA_053

» [Mr. Taro Omura](#) , Prof. Chun-Yi Chen , Prof. Tomoyuki Kurioka , Prof. Tso-Fu Mark Chang , Mr. Akira Onishi , Dr. Parthojit chakraborty , Prof. Katsuyuki Machida , Prof. Hiroyuki Ito , Prof. Yoshihiro Miyake , Prof. Masato Sone

Effects of Cross-Sectional Geometry in Bending Test of Gold Micro-Cantilever toward Design of Movable MEMS Components - Poster T3-P2-WeA_054

» [Mr. Ryohei Hori](#) , Mr. Kazuya Fujita , Prof. Chun-Yi Chen , Prof. Tomoyuki Kurioka , Prof. Tso-Fu Mark Chang , Dr. Parthojit chakraborty , Prof. Katsuyuki Machida , Prof. Hiroyuki Ito , Prof. Yoshihiro Miyake , Prof. Masato Sone

Performance study of MEMS tri-electrode electrostatic actuator with glass and SU-8 between intermediate and primary electrodes - Poster T3-P2-WeA_055

» [Mr. Mehdi Allameh](#) , Dr. Byoungyoul Park , Prof. Cyrus Shafai

A sensitive and robust power transfer-based sensor principle for smart hydrogel volume change detection - Poster T3-P2-WeA_056

» Mr. Benozir Ahmed , Prof. Jules Magda , Prof. Florian Solzbacher , Prof. Christopher Reiche , [Prof. Julia Körner](#)

Sensitive stretchable textile fiber sensor based on Lycra1880/PEGDA/PEDOT:PSS - Poster T3-P2-WeA_057

» [Mr. HANKAI WU](#) , Prof. Cyril Lahuec , Prof. Fabrice Seguin , Prof. Laurent Dupont , Prof. Alexandre Khaldi



Continued from **Wednesday, 21 September**

Insight in Dynamically Operated Gas Sensor Arrays with Shapley Values for Data Segments - Poster T3-P2-WeA_058

» Mr. Yannick Robin, [Mr. Jannis Morsch](#), Mr. Tizian Schneider, [Prof. Andreas Schütze](#), Dr. Christian Bur

A compact Fabry-Perot interferometer based on end-of-fiber polymer tip for physical sensing - Poster T3-P2-WeA_059

» [Mrs. Thi Nhung Pham](#), Dr. Sébastien Guerrault, Dr. Cédric AYELA

Optimization of Plasmonic Slot Waveguides Based on the Mode Characteristics of Three Fundamental Structures - Poster T3-P2-WeA_060

» [Mr. Parviz Saeidi](#), Prof. Bernhard Jakoby, Mr. gerald pühringer, Dr. Andreas Tortschanoff, Mr. Gerald Stocker, Ms. Jasmin Spettel, Dr. florian dubois, Mr. Thomas Grille, Dr. Reyhaneh Jannesari

A high-performance lateral photovoltaic effect-based position sensitive detector using defects at the 3C-SiC/Si interface - Poster T3-P2-WeA_061

» [Mr. Hung Nguyen](#), Mr. Trung-Hieu Vu, Dr. Hong-Quan Nguyen, Dr. Van Dau, Prof. Dzung Dao

Neurotoxic gas sensor based on anchoring transition of liquid crystal - Poster T3-P2-WeA_062

» [Mr. Youen Le Lirzin](#), Prof. Laurent Dupont, Prof. Alexandre Khaldi

Chemical Physical Unclonable Functions Taggant for Anti-Counterfeiting and Authentication Systems - Poster T3-P2-WeA_063

» [Prof. Akinobu Yamaguchi](#), Dr. Toshiya Yasunaga, Prof. Yuichi Utsumi, Prof. Kyoko Namura, Prof. Motofumi Suzuki, Dr. Takao Fukuoka

Inertial bi-stable MEMS switch building blocks for safety & arming applications - Poster T3-P2-WeA_064

» [Dr. Sébastien VIGNE](#), Mr. Jacques Haussy, Mr. Eric Cagneaux, Mr. Julien Dachicourt, Mr. André Tissot

Soft and stretchable printed wire board platform with digitally patterned liquid metal interconnects and flexible interface - Poster T3-P2-WeA_065

» [Mr. Oskar Hellman](#), [Dr. Jan Maslik](#), Prof. Klas Hjort

Surface acoustic wave transduction of a single micromechanical pillar resonator - Poster T3-P2-WeA_066

» [Mr. Hendrik Kähler](#), Prof. Holger Arthaber, Dr. Robert Winkler, Dr. Robert West, Mr. Ioan Ignat, Prof. Harald Plank, Prof. Silvan Schmid

Gas sensing properties of graphene with CuMn2O4 functionalization for e-nose applications - Poster T3-P2-WeA_068

» [Dr. Margus Kodu](#), Dr. Rainer Pärna, Dr. Tea Avarmaa, Dr. Indrek Renge, Dr. Jekaterina Kozlova, Mr. Tauno Kahro, Prof. Raivo Jaaniso

Study of oxygen adsorption/desorption thermodynamics of single WO3 nanowire - Poster T3-P2-WeA_069

» [Mr. Petr Smíštel](#), Dr. Ondřej Chmela, Prof. Jaromír Hubálek

Experimental investigation of aptamer-mycotoxin interaction on graphene field-effect transistor biosensor - Poster T3-P2-WeA_070

» [Mr. Stefan Jarić](#), Mr. Nikita Nekrasov, Dr. Ivan Bobrinetskiy

Large-Area Low-Reflectance of Structured Glass Using Block Copolymer Patterning - Poster T3-P2-WeA_071

» [Dr. Brian Jennings](#), Dr. Riley Gatensby, Dr. Elsa Giraud, Dr. Andrew Selkirk, Dr. Sajjad Husain Mir, Prof. Parvaneh Mokarian-Tabari

Microcantilevers for stress-compensated thin-film measurement in vacuum filter characterization - Poster T3-P2-WeA_072

» [Mr. Francesco Scipione](#), Prof. Christofer Hierold, Dr. Nina Wojtas

Solar Fuel Generation from CO2 Reduction using Photocatalytic Devices based on Plasmonic Nanodisc Arrays - Poster T3-P2-WeA_074

» [Mr. Benny Ku](#), Mr. Lukas Feierabend, Mr. Chun-Wei Su, Dr. Ulrich Plachetka, Prof. Max C. Lemme



Continued from **Wednesday, 21 September**

Synthesis and Conductivity Improvement of Anti-perovskite Na₃OX Solid Electrolytes - Poster T3-P2-WeA_075

» [Ms. Wei Shi](#), Mr. Masataka Ohta, Mr. Hiroaki Asakawa, Dr. Mariko Murayama, Prof. Xinwei Zhao

Electro-optical displays based on nano-particle dispersions - Poster T3-P2-WeA_076

» [Mr. Mohammad Khorsand Ahmadi](#), Dr. Hans Wyss, Dr. Alex Henzen, Mr. Wei Liu

Optimizing electrospray spraying distance for deposition of graphene oxide thin films - Poster T3-P2-WeA_077

» [Mr. Anton Karlsson](#), Prof. Helena Grennberg, Prof. Stefan Johansson

Impurities Analysis of the Gold Components in MEMS Accelerometer by TDS - Poster T3-P2-WeA_078

» [Mr. Takumi Akiyama](#), Prof. Chun-Yi Chen, Prof. Tomoyuki Kurioka, Prof. Tso-Fu Mark Chang, Dr. Parthojit chakraborty, Prof. Katsuyuki Machida, Prof. Hiroyuki Ito, Prof. Yoshihiro Miyake, Prof. Masato Sone

Microfabrication of bio-inspired photonic crystals functionalized with metal-organic framework thin films as chemical sensors - Poster T3-P2-WeA_079

» [Mr. Giel Arnauts](#), Dr. Cesar Parra Cabrera, Ms. Nathalie Wauteraerts, Mr. Christian Renaux, Ms. Margot Verstreken, Dr. Max Tietze, Prof. Rob Ameloot

Tensile Strength of Pt Metallized Polyethylene terephthalate (PET) by Supercritical CO₂-assisted Metallization for Design of Flexible Electronic Components - Poster T3-P2-WeA_080

» [Mr. Po-Wei Cheng](#), Prof. Tomoyuki Kurioka, Prof. Chun-Yi Chen, Mr. Yiming Jiang, Prof. Wan-Ting Chiu, Prof. Masaki Tahara, Prof. Hideki Hosoda, Prof. Taku Ichibayashi, Prof. Suzushi Nishimura, Prof. Masato Sone, Prof. Tso-Fu Mark Chang

A miniaturized microsensor with integrated all-solid-state Ag|AgCl reference electrode for pH sensing - Poster T3-P2-WeA_081

» [Mrs. Nurul Izni Rusli](#), Mr. Ruben Van den Eeckhoudt, Mr. Filippo Franceschini, Prof. Irene Taurino, Prof. Michael Kraft

Property modification of thermo-sensitive smart PNIPAAm hydrogels by embedding of prefabricated metallic nanoparticles - Poster T3-P2-WeA_082

» [Ms. Klaudia Rückmann](#), Mr. Raoul G. C. Middendorff, Mrs. Zahra Salehimoghaddam, [Prof. Julia Körner](#)

In-situ real-time oil monitoring system as an early warning system for water quality of water bodies - Poster T3-P2-WeA_083

» [Mrs. Anja Knecht](#), Mr. Thomas Posnicek, Dr. Martin Brandl

Electrical Impedance of ionic solutions in canned tuna fish. Concentration dependence on components of the equivalent electric circuit - Poster T3-P2-WeA_084

» [Dr. Santos Merino](#), Ms. Inés Zabala, Dr. Unai Eletxigerra, Dr. Jorge Ramiro, Ms. Miren Burguera, Dr. Estibaliz Aranzabe

Tunable Piezoresistive MEMS resonator for bioinspired acoustic sensing with thermomechanical bimorph actuation - Poster T3-P2-WeA_085

» [Mr. Vishal Gubbi](#), Dr. Tzvetan Ivanov, Mr. Kalpan Ved, Dr. Claudia Lenk, Prof. Martin Ziegler

Numerically study the combined effect of electrophoresis and electroosmosis in the nonpolar system - Poster T3-P2-WeA_086

» [Mr. Wei Liu](#), Mr. Mohammad Khorsand Ahmadi, Dr. Alex Henzen, Dr. Hans Wyss, Dr. Jan Groenewold

SiGe photonics circuits in the mid-IR - Poster T3-P2-WeA_087

» [Mr. Xavier Le Roux](#), Ms. Natnicha koompai, Ms. Thi-hao-nhi Nguyen, Mr. Jacopo Frigerio, Mr. Andrea Ballabio, Ms. Virginia Falcone, Mr. Carlos Alonso-Ramos, Mr. Laurent Vivien, Mr. Adel Bousseksou, Mr. Giovanni Isella, Ms. Delphine Morini

Continued from **Wednesday, 21 September**

Size dependent sensor response for cobalt oxide based MEMS pellistors - Poster T3-P2-WeA_088

» [Dr. Olena Yurchenko](#), Dr. Benedikt Bierer, Mrs. Annett Isserstedt-Trinke, Mr. Martin Jaegle, Mr. Steffen Biermann, Prof. Jürgen Wöllenstein

Development and integration of electrochemical microbiosensors in a Lab-On-Disc type platform for in situ monitoring of surface water quality - Poster T3-P2-WeA_089

» [Ms. Camille Bene](#), Dr. Jérôme Launay, Dr. Pierre Temple-Boyer, Mrs. Marie-Charline Blatché, Dr. Claude Durrieu, Dr. Edwige Gautreau, Mr. Adrian Laborde, Dr. Luis Abraham Lozano Hernandez, Dr. Isabelle Séguy, Mr. Ludovic Salvagnac, Dr. Véronique Bardinal-Delagnes

Roll-to-roll UV-imprinting for microfluidic burst valve in microsampling devices - Poster T3-P2-WeA_090

» [Ms. Laura Angermann-Krammer](#), Dr. Dieter Nees, Dr. Anja Haase, Dr. Barbara Stadlober, Dr. Dries Vloemans, Dr. Francesco Dal Dosso, Prof. Jeroen Lammertyn

Scaling of AC electrokinetic phenomena revealed on nanoelectrodes - Poster T3-P2-WeA_091

» [Mr. Gerhard Blankenburg](#), Mr. Huberth Hernández, Prof. Leonardo Lesser-Rojas, Prof. Chia-Fu Chou

Laser Assisted Formation of Local Defined Microstructures for Cu(In, Ga)Se₂-Absorbers for Micro Concentrating Solar cells - Poster T3-P2-WeA_092

» [Dr. Setareh Zahedi Azad](#), Mr. Owen. C. Ernst, Dr. Torsten Boeck

High performance contact electrode for microscale light-emitting diodes using nickel contained gallium oxide thin-film - Poster T3-P2-WeA_093

» [Mr. Seok Hee Hong](#), Dr. Kyung Rock Son, Mr. Ho Jin Lee, Dr. Wan Qi Ren, Ms. Nahyun Kim, Prof. Tae Geun Kim

Design Optimizations for Miniaturized Inkjet Printed Ion Sensors using Electrochemical Impedance Spectroscopy - Poster T3-P2-WeA_094

» [Ms. Eva-Maria Korek](#), Mr. Jakob Frey, Prof. Ralf Brederlow

Highly flexible blue TADF organic light-emitting diode with superb efficiency using surface-doped ZnO/Ag/ZnO mesh electrode - Poster T3-P2-WeA_095

» [Mr. Ho Jin Lee](#), Ms. Nahyun Kim, Mr. Seok Hee Hong, Mr. Hwi Geun Kim, Prof. Tae Geun Kim

16:30

Poster : SMND-P1-WeA

Poster - SMND - Session 1

Venue - Hall O&N II (room 04.298) - BOARDS SMND

Chaired by: Prof. Joris Van de Vondel and Prof. Alejandro Silhanek

Microwave-domain characterization of the Josephson inductance of InAs nanowire junctions - Poster SMND-P1-WeA_001

» [Mr. Ivo Cools](#), Mr. Rodrigo Mitchell Lopez Baez, Mr. Vittorio Buccheri, Dr. Thomas Kanne, Prof. Jesper Nygård, Dr. Attila Geresdi

Metastable states and hidden phase slips in nanobridge SQUIDs - Poster SMND-P1-WeA_003

» [Mr. Lukas Nulens](#), Ms. Heleen Dausy, Mr. Michal Wyszynski, Dr. Bart Raes, Prof. Magriet Van Bael, Prof. Milorad Milosevic, Prof. Joris Van de Vondel

Fabrication and characterization of NbTi superconducting resonators - Poster SMND-P1-WeA_004

» [Mr. Roberto Russo](#), Mr. André Chatel, Dr. Hernan Furci, Ms. Nergiz Sahin Solmaz, Prof. Jürgen Brugger, Dr. Giovanni Boero

Ultra-High Vacuum Lithography of Josephson Junctions for Future Superconducting Qubits - Poster SMND-P1-WeA_005

» [Mr. Roudy Hanna](#), Mr. Tobias Schmitt, Dr. Albert Hertel, Ms. Anne Schmidt, Mr. Benjamin Bennemann, Mr. Benedikt Frohn, Mr. Michael Schleenvoigt, Ms. Jin Hee Bae, Dr. Pavel Bushev, Dr. Peter Schüffelgen, Prof. Detlev Grützmacher



Continued from **Wednesday, 21 September**

19:00 **General : MNE-ES Night**
MNE-ES Night 2022 - UPON REGISTRATION
Venue - Royal Museum of Fine Arts, Brussels
Chaired by: Prof. Irene Taurino and Prof. Michael Kraft and Prof. Jean-Paul Viricelle and John Randall and Dr. Jean-Francois de Marneffe and Dr. Luca Francioso and Mrs. Gabi Grützner and Mr. Dirk Brueggemann

Thursday, 22 September

08:45 **Keynote : FC-ThM**
MNE Fellow Ceremony - 15min
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
Chaired by: Prof. Stephan Sylvest Keller and Prof. Urs Staufer and Mr. Steffen Diez

MNE Fellow 2022
» [Stephan Sylvest Keller](#)

09:00 **Keynote : PL-C-ThM**
Plenary Session C - 90min
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
Chaired by: Prof. Cornelis Hagen and Prof. Stephan Sylvest Keller

PLENARY - MNE^2: Micro Nano Engineering and Education
» [Prof. Jürgen Brugger](#)

PLENARY - EUV lithography: past, present and future
» [Dr. Jos Benschop](#)

11:00 **Oral : T2-G-ThM**
Oral Track 2 - Session G - Flexible substrates - 105min
Venue - Groot Aula GA2 - 474 seats (room 04.14)
Chaired by: Dr. Evangelos Gogolides and Prof. Cliff Jones

Fabrication of a PIFA on a biodegradable chitosan substrate for IoT applications
» [Ms. Ilaria Marasco](#), Mr. Giovanni Niro, Ms. Gaia de Marzo, Dr. Francesco Rizzi, Prof. Antonella D'Orazio, Prof. Marco Grande, Prof. Massimo De Vittorio

Pressure and temperature flexible microsensors for textile integration
» [Mr. José B. Queiroz](#), Mr. Dimitri E. Santos, Ms. Inês S. Garcia, Dr. Graça Minas, Ms. Juliana Cruz, Ms. Maria Bouçanova, Ms. Luísa Arruda, Ms. Inês Moreira, Dr. Raúl Figueiro, Dr. Anabela Salgueiro, Dr. Alar Ainla, Dr. Filipe S. Alves, Dr. Rosana A. Dias

TRACK INVITED - Smart contact lenses: stretchable platforms for healthcare
» [Prof. Andres Vasquez Quintero](#), Prof. Herbert De Smet, Prof. Jan Vanfleteren

Flexible chitosan-based friction sensors exploiting wrinkling instability for electronic artificial skin application
» [Ms. Federica Vergari](#), Mr. Luigi Portaluri, Ms. Gaia de Marzo, Dr. Luciana Algieri, Dr. Konstantinos Pagkalis, Dr. Antonio Qualtieri, Dr. Michele Scaraggi, Prof. Massimo De Vittorio

Flexible and Highly Sensitive Pressure Sensor Based on Patterned PDMS Forming with Laser Pyrolysis Direct Write Technique for Wearable Electronics
» Mr. Shaogang Wang, Mr. Qihang Zong, Mr. Chunjian Tan, Prof. Huaiyu Ye, [Prof. Paddy French](#)



Continued from **Thursday, 22 September**

Tackling water scarcity with superhydrophobic plasma-nanotextured polymeric surfaces and membranes: Applications in atmospheric water harvesting and membrane distillation for water cleaning

» [Dr. Evangelos Gogolides](#) , Mr. Dimitris Nioras , Mr. Dimosthenis Ioannou , [Dr. Kosmas Ellinas](#)

11:00

Oral : T4-G-ThM

Oral Track 4 - Session G - Membranes and nanopores - 75min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: [Dr. Francesca Costantini](#) and [Prof. Albert Romano-Rodriguez](#)

TRACK INVITED - Nanochannels and Nanopores for single-molecule separation and sensing

» [Prof. Amit Meller](#)

Plasmonic Solid-state Nanopores: Toward Single-molecule Protein Identification

» [Dr. Francesco De Angelis](#)

Nanopore field-effect transistors with steep slope characteristics

» [Dr. Lijun Liu](#)

Influence of topography on the spontaneous flow of DNA molecules in nanofluidic channels

» [Mr. Tim Erichlandwehr](#) , Ms. Franziska Esmek , Mr. Dennis Mors , [Dr. Irene Fernandez-Cuesta](#)

11:00

Oral : SMND-A-ThM

Oral SMND - Session A - superconducting nanosensors - 75min

Venue - BMW4 - 105 seats (room 04.212)

Chaired by: [Prof. Joris Van de Vondel](#) and [Mr. Alejandro Silhanek](#)

TRACK INVITED - The T-SQUIPT: Thermal Superconducting Quantum Interference Proximity Transistor

» [Dr. FRANCESCO GIAZOTTO](#)

Magnetic, Thermal, and Topographic Imaging with a Nanometer-Scale SQUID-On-Lever Scanning Probe

» [Prof. Martino Poggio](#) , [Dr. Kousik Bagani](#)

Direct-write Printing of Josephson Devices in an Electron Microscope

» [Dr. Julian Linek](#) , [Mr. Peter Lendway](#) , [Mr. Tycho Blom](#) , [Mr. Dennis Uitenbroek](#) , [Prof. Jan Aarts](#) , [Prof. Dieter Kölle](#) , [Dr. Kaveh Lahabi](#)

Ultralow-noise SQUIDs for noninvasive measurements of fast brain signals

» [Dr. Rainer Körber](#) , [Mr. Jan-Hendrik Storm](#) , [Ms. Monique Klemm](#) , [Dr. Gunnar Waterstraat](#) , [Dr. Gabriel Curio](#) , [Mr. Patrick Prochota](#) , [Ms. Cornelia Aßmann](#) , [Dr. Patryk Krzysteczko](#) , [Dr. Jörn Beyer](#)

11:00

Oral : T1-D-ThM

Oral Track 1 - Session D - 3D/Additive/Nanosphere lithographies - 120min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: [Prof. Cornelis Hagen](#) and [sylvia Armini](#)

TRACK INVITED - Grayscale Lithography for Microoptical Elements

» [Dr. Robert Leitel](#) , [Ms. Sylke Kleinle](#) , [Ms. Anja Schöneberg](#)

Micro/nanoscale resolution, centimeter-scale volume, multi-material stereolithography 3D printer for versatile applications

» [Dr. Tien-Jen Chang](#) , [Mr. Martin Voss](#) , [Dr. Roman Slipets](#) , [Prof. \(Edwin\) En-Te Hwu](#)

Highly structured on-chip 3D interdigitated pyrolytic carbon microelectrodes derived from additive manufacturing technology

» [Ms. Swetha Vasudevan Kanakkottu](#) , [Dr. Babak Rezaei](#) , [Prof. Henri Jansen](#) , [Prof. Stephan Sylvest Keller](#)

Surface-enhanced Raman scattering with hexagonal arrays of plasmonic gold nanopyramids on flexible substrates

» [Mr. Christian Simo](#) , [Dr. Florian Laible](#) , [Dr. Anke Horneber](#) , [Dr. Claus Burkhardt](#) , [Prof. Monika Fleischer](#)



Continued from **Thursday, 22 September**

Application of SERS Chemical Sensor of Nanoporous Ag Thin Film Fabricated by Cluster Source Sputtering

» [Mr. Shinung KIM](#) , Mr. Sungho Yun , Prof. Dongin Lee , Prof. Bonghwan Kim , Prof. Chanseob Cho

Direct writing of Liquid Metals for Printed Electronics

» [Mr. Navid Hussain](#) , Ms. Tongtong Fu , Dr. Gabriel Cadilha Marques , Dr. Chittaranjan Das , Dr. Torsten Scherer , Mr. Lukas Berner , Dr. Uwe Bog , Dr. Irene Wacker , Prof. Rasmus R Schröder , Prof. Jasmin Aghassi , Dr. Michael Hirtz

Modeling of thick photoresist for grayscale lithography application

» [Ms. Valeriia Sedova](#) , Ms. Jiayi Lu , Prof. Andreas Erdmann , Dr. Robert Leitel

11:15

Oral : T3-F-ThM

Oral Track 3 - Session F - Sensors Part 3 - 90min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Dr. Ada-loana Bunea and Dr. Attila Geresdi

Resonant vibrometer based on a suspended bilayer graphene membrane

» [Mr. Daniel Moreno](#) , Prof. Xuge Fan , Prof. Frank Niklaus , Prof. Guillermo Villanueva

Dynamics of a closed-loop digitally controlled microcantilever with parametric amplification/suppression for enhanced sensing

» [Dr. Joao Mouro](#) , Dr. Paolo Paoletti , Dr. Marco Sartore , Dr. Bruno Tiribilli

Design considerations for application-specific highly-sensitive co-resonant cantilever sensors

» [Prof. Julia Körner](#)

Miniaturized vapor cells with integrated heater and antireflection coating for nuclear magnetic resonance gyroscopes

» [Dr. Martina Hübner](#) , Dr. Janine Riedrich-Möller , Dr. Tino Fuchs

Concept of an impedance-based ammonia sensor for SCR applications

» [Mr. Thomas Wöhr](#) , Dr. Gunter Hagen , Prof. Ralf Moos

PNIPAAm hydrogels as sensing material for VOCs detection

» [Ms. Sitao Wang](#) , Prof. Gerald Gerlach , Prof. Julia Körner

13:15

Oral : T4-H-ThA

Oral Track 4 - Session H - Cell trapping - 105min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Prof. Jaap den Toonder and Dr. Koen Martens

TRACK INVITED - Nanofluidic transport, size separation, and directed deposition of nanoscale objects

» [Dr. Philippe Nicollier](#) , Dr. Francesca Ruggeri , Dr. Christian Schwemmer , Mr. Daniel Widmer , Ms. Ute Drechsler , Dr. Heiko Wolf , [Dr. Armin Knoll](#)

Silica seed particles improve efficiency and throughput of nanoparticle trapping

» [Ms. Megan Havers](#) , Dr. Andreas Lenshof , Dr. Thierry Baasch , Prof. Thomas Laurell

Micro-perforated membrane for label-free cell capture and integrated electrical detection operating in whole blood

» [Mr. Matthieu Sagot](#) , Dr. Elise Bou , Mr. David Bourrier , Dr. Aline Cerf , Prof. Hervé Aubert , Prof. Christophe Vieu

Novel design for a microfluidic-based platform for high-throughput yeast analysis

» [Dr. Georgia Kaprou](#) , Dr. Nicole Paczia , Dr. Abhay Andar , Dr. Pranjul Shah , Prof. Carole Linster



Continued from **Thursday, 22 September**

Micropatterning of electron microscopy grids for improved cellular cryo-electron tomography throughput

» [Dr. Leeya Engel](#) , Dr. Claudia Vasquez , Dr. Elizabeth Montabana , Ms. Belle Sow , Dr. Marcin Walkiewicz , Prof. William Weis , Prof. Alexander Dunn

REMOTE - Micromechanical sensors coupled with dielectrophoresis for trapping and weighting particles in fluids

» [Dr. Roberta Calmo](#) , Dr. Jonathan Cottet , [Dr. Stefano Stassi](#) , Dr. Clémentine Sophie Sarah Lipp , Prof. Philippe Renaud , Dr. Andrea Lovera , Prof. Carlo Ricciadi

13:30

Oral : SMND-B-ThA

Oral SMND - Session B - Superconducting hybrid devices - 75min

Venue - BMW4 - 105 seats (room 04.212)

Chaired by: Prof. Joris Van de Vondel and Prof. Clement Merckling

TRACK INVITED - Exploring novel semiconductor/superconductor hybrids

» [Prof. Erik P.A.M. Bakkers](#)

Nano-Engineered High-Temperature Superconductors and Hybrid Systems for Energy-Efficient Functional Devices

» [Dr. Anna Palau](#) , Mr. Jordi Alcalà , Mr. Aleix Barrera , Dr. Thomas Günkler , Dr. Lluís Balcells , Dr. Narcís Mestres

UHV Lithography for Investigations of Topological Insulator-Superconductor Hybrid Structures and Devices

» [Mr. Michael Schleenvoigt](#) , Ms. Priyamvada Bhaskar , Mr. Tobias Schmitt , Mr. Max Vaßen-Carl , Dr. Daniel Rosenbach , Dr. Peter Schüffelgen , Prof. Markus Morgenstern , Prof. Detlev Grützmacher

Electronic Erosion in Perovskites

» [Mr. Stefan Marinkovic](#) , Mr. Simon Collienne , Mr. Alejandro Fernández-Rodríguez , Mr. Emile Fourneau , Dr. Mariona Cabero , Dr. Hailin Wang , Prof. Ngoc Duy Nguyen , Dr. Jaume Gazquez , Dr. Narcis Mestres , Dr. Anna Palau , Prof. Alejandro Silhanek

13:45

Oral : T2-H-ThA

Oral Track 2 - Session H - 2D Materials and Devices - 90min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Herbert De Smet and Prof. Karl Boehringer

TRACK INVITED - 2D materials and semiconductor technology: Is there a common future?

» [Dr. Cedric Huyghebaert](#) , Dr. Inge Asselberghs , Dr. Steven Brems

Temperature-dependent Spectroscopic and Electrical Studies on MoS₂/PtTe₂

» Dr. Ann Sebastian , Mr. Md. Golam Kaium , Dr. Tae-Jun Ko , Dr. Mashiyat Shawkat , Prof. Yeonwoong Jung , [Prof. Ethan Ahn](#)

Two-Dimensional p-n Junctions Fabricated by Edge Doping of MoS₂

» [Dr. Luca Anzi](#) , Prof. Roman Sordan

Grayscale nanopatterning for 2D material straining

» [Mr. Berke Erbas](#) , Dr. Ana Conde-Rubio , Dr. Xia Liu , Prof. Mitali Banerjee , Dr. Marcos Penedo , Prof. Georg Fantner , Dr. Giovanni Boero , Prof. Jürgen Brugger

An improved transfer method for increasing the yield of suspended membranes based on two-dimensional materials for sensor applications

» [Mr. Sebastian Lukas](#) , Mrs. Ines Kraiem , Mr. Maximilian Prechtel , Mr. Oliver Hartwig , Mrs. Annika Grundmann , Dr. Holger Kalisch , Dr. Satender Kataria , Prof. Michael Heuken , Prof. Andrei Vescan , Prof. Georg S. Duesberg , Prof. Max C. Lemme

14:00

Oral : T1-E-ThA

Oral Track 1 - Session E - Other Lithography Techniques - 90min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: Dr. Arne Schleunitz and John Randall

Continued from **Thursday, 22 September**

Laser assisted direct gold wiring of 2D materials with sub- μ m resolution

» [Dr. Kai Braun](#), Ms. Olympia Geladari, Mr. Martin Eberle, Dr. Florian Fetzler, Prof. Marcus Scheele, Prof. Andreas Schnepf, Prof. Alfred J. Meixner

Gate-all-around Si circuitry : Graphoepitaxy of block copolymer assisted patterned nanowire arrays

» [Dr. Tandra Ghoshal](#), Prof. Michael Morris

Focused ion beam direct writing of the magnonic structures into the metastable iron thin film

» Mr. Jakub Holobrádek, Mr. Ondrej Wojewoda, Dr. Tomas Hrcir, Mr. Tomas Boruvka, [Mr. Milos Hrabovsky](#), Dr. Michal Urbanek

Monolithic X-ray doublets for achromatic focusing

» [Dr. Umut Sanli](#), [Dr. Peng Qi](#), Dr. Griffin Rodgers, Dr. Marie-Christine Zdora, Dr. Ana Diaz, Mr. Mattia Humbel, Dr. Georg Schulz, Dr. Mario Scheel, Dr. Timm Weitkamp, Prof. Bert Müller, Dr. Christian David, Dr. Joan Vila-Comamala

(REMOTE) - An approach for direct laser writing on curved substrates maintaining high accuracy and resolution

» [Mr. Johannes Belkner](#), Ms. Jaqueline Stauffenberg, Mr. Wei Wang, Ms. Xinhui Li, Mr. Guido Straube, Dr. Ingo Ortlepp, Prof. Eberhard Manske

REMOTE - Stencil Lithography for Bridging MEMS and NEMS

» [Mr. Basit Ali](#), Dr. Mehrdad Karimzadehkhoei, Dr. Mohammad Nasr Esfahani, Prof. Yusuf Leblebici, Prof. B. Erdem Alaca

14:00

Oral : T3-G-ThA

Oral Track 3 - Session G - Sensors Part 4 - 120min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Prof. Stefan Palzer and Prof. Erik P.A.M. Bakkers

TRACK KEYNOTE - Evolution and Future Perspectives of Phononic Crystal Liquid Sensors

» [Prof. Frieder Lucklum](#)

A novel biosensing platform of directly-immersible silicon photonic probes for applications at the point of interest

» Dr. Konstantinos Misiakos, Ms. Dimitra Kourti, Dr. Mihailia Angelopoulou, Dr. Panagiota Petrou, Dr. Sotirios Kakabakos, Mr. Alexandros Salapatas, [Dr. Eleni Makarona](#)

Neuronal growth on large-scale diamond nanopillar arrays for NV biosensing

» [Dr. Elena Losero](#), Dr. Christophe Galland, Prof. Niels Quack, Dr. Maurizio Pezzoli, Dr. Hilal Lashuel, Dr. Somanath Jagannah

Optimization of design and signal treatment of flexible and wearable piezoelectric tactile sensors for grasping and manipulation sensing

» [Ms. Valeria Carluccio](#), Dr. Vincenzo Mastronardi, Dr. Luciana Algieri, Ms. Gaia de Marzo, Dr. Luca Fachechi, Dr. Francesco Rizzi, Prof. Massimo De Vittorio

Design of a High Q-factor Label-Free Optical Sensor Based on Photonic Crystal Coupled-Cavity Waveguide for Biosensing Applications

» [Dr. Reyhaneh Jannesari](#), Mr. Gerald Pühringer, Mr. Gerald Stocker, Mr. Thomas Grille, Prof. Bernhard Jakoby

Microintegrated GaN LED Emitter-Detector for Colour Interrogation

» Dr. Olga Casals, Mr. Juan Luis Soler-Fernandez, Ms. Ares Lladós, Ms. Maria Gonzalez-Gomez, Dr. Peyman Amiri, Prof. Hongqiang Li, Dr. Oscar Alonso, Dr. Jana Hartmann, Dr. Matthias Auf der Maur, Prof. Andreas Waag, Dr. Cristian Fabrega, [Prof. I. Daniel Prades](#)

15:30

Oral : T4-I-ThA

Oral Track 4 - Session I - Organs and cells on chip 2 - 90min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Dr. Angelo Accardo and Prof. Amit Meller

Continued from **Thursday, 22 September**

Magnetically actuated glaucoma drainage device for regulating intraocular pressure after implantation

» [Ms. Inês Pereira](#) , Dr. Hans Wyss , Dr. Henny Beckers , Prof. Jaap den Toonder

Exploring PEDOT:PSS Multiscale Patterning For Advanced Neural Interfaces

» [Dr. Michele Bianchi](#) , Ms. Alice Lunghi , Mrs. Sonia Guzzo , Ms. Anna De Salvo , Dr. Pierpaolo Greco , Mr. Mauro Murgia , Dr. Michele Di Lauro , Prof. Luciano Fadiga , Prof. Fabio Biscarini

Nanofabricated patterns for the control of T cell receptor clustering

» [Mr. Yuval Segal](#) , Dr. ASHISH PANDEY , Mrs. Sivan Tzadka , Mrs. Esti Toledo , Mr. Muhammed Iraqi , Dr. Olga Radinsky , Prof. Angel Porgador , Dr. Guillaume Le Saux , Prof. Mark Schwartzman

TRACK KEYNOTE - Labs and Organs on Chip for Health and Environment

» [Prof. Albert Van den Berg](#)

15:30

Oral : SMND-C-ThA

Oral SMND - Session C - Superconducting devices for quantum technology - 75min

Venue - BMW4 - 105 seats (room 04.212)

Chaired by: Mr. Alejandro Silhanek and Dr. Anna Palau

TRACK INVITED - Andreev bound states in semiconductor nanowires: the road towards quantum technology

» [Dr. Attila Geresdi](#)

Argon milling induced loss mechanisms in superconducting quantum circuits.

» [Mr. Jacques Van Damme](#) , Dr. Tsvetan Ivanov , Mr. Jeroen Verjauw , Mr. Rohith Acharya , Ms. Ilse Hoflijk , Dr. Daniel Perez Lozano , Dr. Vadiraj Rao , Dr. Massimo Mongillo , Dr. Danny Wan , Prof. Jo De Boeck , Prof. Kristiaan De Greve , Dr. Anton Potocnik

Sub-micrometer Patterning and Characterization of Superconducting NbTi Thin Films by Fluorine-based Plasma Etching

» [Mr. André Chatel](#) , Mr. Loïc Broyer , Mr. Roberto Russo , Mr. Reza Farsi , Prof. Jürgen Brugger , Dr. Giovanni Boero , Dr. Hernan Furci

Integrated BaBiO3 perovskite on silicon by molecular beam epitaxy: for quantum applications

» [Mr. Islam Ahmed](#) , Dr. Thomas Nuytten , Ms. Stefanie Sergeant , Dr. Moloud Kaviani , Dr. Luca Ceccon , Prof. Stefan De Gendt , Prof. Clement Merckling

15:45

Oral : T2-I-ThA

Oral Track 2 - Session I - Thin films - 90min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Niels Quack and Prof. Laurent Francis

TRACK INVITED - SiC Process Technologies for MEMS

» [Prof. Ulrich Schmid](#) , Dr. Michael Schneider , Dr. Markus Leitgeb , Dr. Georg Pfusterschmied

Highly Transmissive Nanostructured Multispectral Color Filters Fabricated by Nano-Imprint Lithography

» [Dr. Bharathkumar Mareddi](#) , Dr. Kristof Lodewijks , Mr. Rongchen Qin , Ms. Anabel De Proft , Mr. Bruno Figeys , Ms. Myriam Willegems , Mr. Roelof Jansen , Mr. Xavier Rottenberg , Ms. Eleonora Storace , Ms. Bogumila Kutrzeba Kotowska

Self-patterned ultra-sharp diamond tips and their application for advanced nanoelectronics device characterization by electrical SPM

» [Mr. Lennaert Wouters](#) , Dr. Albert Minj , Mr. Thijs Boehme , Dr. Thomas Hantschel

Thin film packaging for K-band RF MEMS switches

» Dr. Anna Persano , Dr. Jacopo Iannacci , Dr. Alvis Bagolini , Ms. Maria Concetta Martucci , Mr. Pasquale Creti , Ms. Adriana Campa , [Dr. David Novel](#) , Dr. Girolamo Tagliapietra , Dr. Pietro Siciliano , Dr. Fabio Quaranta

Continued from **Thursday, 22 September**

Integrated Zinc Oxide Inverters with Optimised Al-doped Zinc Oxide Contacts

» [Mr. Ben Rowlinson](#), Mr. Jiale Zeng, Mr. Arvin Mallari, Dr. Joshua Akrofi, Dr. Martin Ebert, Dr. Liam Boodhoo, Prof. Harold Chong

16:30

Oral : T1-F-ThA

Oral Track 1 - Session F - Materials - 105min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: Dr. Harm Knoops and Silvia Armini

TRACK KEYNOTE (ABSENT-SKIP)- Sequential infiltration synthesis: Applications from lithography to clean water

» Dr. Ruben Waldman, Dr. Yu-Chih Tseng, Prof. Qing Peng, Ms. Wen Chen, Prof. Mahua Biswas, Dr. Aaron Taggart, Prof. Nari Jeon, Dr. David Mandia, Dr. Ed Bary, Prof. Diana Berman, Dr. Elena Shevchenko, Dr. Joseph Libera, Dr. Nestor Zaluzec, Prof. Paul Nealey, Dr. Anil Mane, Dr. Alex B. F. Martinson, Dr. Jeffrey Elam, [Dr. Seth Darling](#)

TRACK INVITED - From irreversible adsorption to a new molecular picture of equilibration of glasses and liquids: the Slow Arrhenius Process

» [Prof. Simone Simon Napolitano](#), Dr. Zijian Song, Dr. Cristian Tinoco-Rodriguez, Dr. David Nieto Simavilla, Dr. Allen Mathew

High-Sensitivity, Dry-Develop Resists for Micro/Nanometer Scale Mix-And-Match Lithography

» [Dr. Anthony Engler](#), [Dr. Jared Schwartz](#), Prof. Paul Kohl

Advancing manufacturing technology for low-cost hybrid-optical blazed gratings on curved surfaces

» [Mr. Johannes Wolf](#), Mr. Paul Kastl, Mr. Bashir Maqboul, Mrs. Susanne Grützner, Dr. Maria Russew, Mr. Daniel Rolón, Dr. Stefan Kühne, Prof. Dirk Oberschmidt, Dr. Thomas Krist, Dr. Arne Schleunitz, Mrs. Gabi Grützner

Water-soluble bio-sourced resists for DUV lithography in a 200/300 mm pilot line environment

» [Dr. Isabelle Servin](#), Mr. Alexandre Teolis, Dr. Arnaud Bazin, Ms. Paule Durin, Ms. Olha Sysova, Ms. Corinne Gablin, Mr. Benoît Saudet, Dr. Didier Leonard, Dr. Olivier Soppera, Dr. Jean-Louis Leclercq, Dr. Yann Chevotot, Dr. Raluca Tiron, Dr. Thierry Delair, Dr. Stéphane Trombotto

A large-scale Nanocomposite Metalens for High-Contrast Near-Infrared Imaging

» [Ms. Hojung Choi](#), Mr. Wonjoong Kim, Mr. Chanwoong Park, Mr. Sucheol Ju, Mr. Hangyu Lim, Mr. Nakhyun Kim, Mr. Jaemin Park, Dr. Ick-chan Ju, Prof. Heon Lee

Self-folding out-of-plane features in polyimide polydimethylsiloxane interfaces

» [Mr. Ragnar Seton](#), Dr. Zahra Khaji, Dr. Anders Persson

17:15

Oral : SMND-D-ThA

Oral SMND - Best SNMD Paper - 15min

Venue - BMW4 - 105 seats (room 04.212)

17:30

Oral : T4-J-ThA

Oral Track 4 - Session J - Processes 2 - 75min

Venue - Groot Aula GA3 - 392 seats (room 04.28)

Chaired by: Dr. Serguei Stoukatch and Prof. Stephan Sylvest Keller

TRACK KEYNOTE - Plasma Technology in the Service of Wearable and Portable Artificial Kidneys

» [Prof. Buddy Ratner](#)

Chip-integrated non-mechanical electrowetting-driven pump - Dimensioning, manufacturing and fluidic characterization

» [Mr. Sebastian Bohm](#), Mr. Hai Binh Phi, Mr. Lars Dittrich, Prof. Erich Runge



Continued from **Thursday, 22 September**

Elaboration of nanoneedle arrays via nanosphere lithography and single step continuous ICP etching. Application for detections of neurodegenerative diseases' biomarkers by mass spectrometry

» [Mr. Paul MOUSTIEZ](#)

17:45

Oral : T2-J-ThA

Oral Track 2 - Session J - Direct Writing - 75min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Buddy Ratner and Prof. Michael De Volder

In-situ material replacement for efficient high-resolution multi-material 3D laser writing

» [Dr. Robert Kirchner](#) , [Dr. Ye Yu](#) , [Mr. Yuan Gao](#) , [Mr. Man Ho Wong](#) , [Mr. Siddharth Das](#) , [Ms. Souha Toukabri](#) , [Mr. Jörg Knorr](#)

Softer, thinner and more compliant cochlear implants with liquid metal

» [Dr. bei wang](#) , [Prof. Klas Hjort](#) , [Dr. Hao Li](#) , [Prof. Anders Fridberger](#) , [Mrs. Jing Xu](#) , [Dr. Sonal Prasad](#)

Direct laser writing of mussel-inspired polydopamine

» [Dr. Ievgeniia Topolniak](#) , [Dr. Anna Maria Elert](#) , [Dr. Xenia Knigge](#) , [Dr. Goksu Cinar Ciftci](#) , [Dr. Jörg Radnik](#) , [Prof. Heinz Sturm](#)

SurfAP3® – Direct Writing Micro Plasma Printing for Localized Surface Functionalization Aimed at Biosensing and Microfluidic Applications

» [Ms. Laura Barillas-Mora](#) , [Dr. Torsten Gerling](#) , [Prof. Klaus-Dieter Weltmann](#)

PVDF-TrFE – graphene inks for additive manufacturing of miniaturized devices

» [Ms. Andrea Spanou](#) , [Prof. Stefan Johansson](#) , [Prof. Cecilia Persson](#) , [Dr. Mamoun Taher](#)

18:15

General : ImecV-G-ThA

imec visit G - 60 min - INVITATION ONLY - 20p

Venue - imec vzw - ODD groups

Chaired by: [Mr. Jevin Bosman](#) and [Prof. Cornelis Hagen](#) and [Dr. Max Tietze](#) and [Prof. Monika Fleischer](#) and [Mr. Nikitas Melios](#) and [Dr. George Tsekens](#) and [Mrs. Zena Chakim](#) and [Dr. Stefan Mastel](#) and [Mr. Georg Marschick](#) and [Ms. Sadna Isik](#) and [Dr. Mario Ziegler](#) and [Prof. Yong-Sang Kim](#) and [Mr. Diederik Maas](#) and [Prof. J. Daniel Prades](#) and [Mr. Sanjeev Vishal Kota](#) and [Dr. Afsal Kareekunnan](#) and [Dr. Attila Geresdi](#) and [Dr. Rucha Deshpande](#) and [Prof. Sandrine Bernardini-Barakel](#) and [Prof. Maysam Chamanzar](#)

18:30

General : KULV-D-ThA

KU Leuven Nanocentre visit D - INVITATION ONLY - 15p

Venue - KU Leuven Nanocentre

Chaired by: [Mr. Yuki Matsuo](#) and [Mr. Taichi Suhara](#) and [Mr. Soundarya Mahalingaiah](#) and [Dr. Patrick Vanraes](#) and [Ms. Jitka Urbankova](#) and [Ms. Shahana Bishnoi](#) and [Mr. Mohamed Tawfik](#) and [Prof. Seok Kim](#) and [Dr. Steffen Marschmeyer](#) and [Mr. Mohammed Alkhaled](#) and [Mr. Batuhan Emr Kaynak](#) and [Prof. Chia-Fu Chou](#) and [Yoshishige Tsuchiya](#) and [Prof. \(Edwin\) En-Te Hwu](#) and [Merritt Funk](#)

18:45

General : ImecV-H-ThA

imec visit H - 60 min - INVITATION ONLY - 20p

Venue - imec vzw - EVEN groups

Chaired by: [Mr. Yuan Cao](#) and [Mr. Christian Simo](#) and [Dr. Martina Hübner](#) and [Mr. Kaivan Karami](#) and [Mr. Manuel Müller](#) and [Mr. Jeremy Teuber](#) and [Prof. Anpan Han](#) and [Dr. Dario Mager](#) and [Mr. Felix Nägele](#) and [Mr. Naoya Shiraiwa](#) and [Dr. Luca Francioso](#) and [Ms. Anja Kroetschl](#) and [Ms. Parastoo Salimitari](#) and [Mr. Raschid Azizy](#) and [Ms. Jaqueline Stauffenberg](#) and [Mr. JanWillem Burssens](#) and [Dr. Celestino Padeste](#) and [Prof. Alfons Dehé](#) and [Ms. Sarah Emily Beck](#) and [Mr. Johannes Wolf](#)



Continued from **Thursday, 22 September**

19:00 **General : Sponsors-D-ThN**
Sponsors Barbecue - UPON INVITATION ONLY
Venue - Arenberg Kasteel, KULeuven
 Chaired by: Prof. Irene Taurino and Dr. Jean-Francois de Marneffe and Mr. de Marneffe Martin

19:15 **General : ImecV-I-ThA**
imec visit I - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - ODD groups
 Chaired by: Mr. André Kosak and Mr. Hendrik Kähler and Dr. Robert Leitel and Ms. Jiayi Lu and Dr. Thomas Gerster and Mr. Affan Kaysa Waafi and Mr. Kevin Grenaae Meyer and Bastien Venzac and Dr. Christophe Vieu and Mr. Victor Fabre and Laurent Malaquin and Ms. Valeriia Sedova and Ms. Federica Vergari and Ms. Valeria Carluccio and Dr. Arne Schleunitz and Ms. Linda Scharfenberg and Mr. Danyil Azarkh and Dr. Péter Fürjes and Prof. Rafael Taboryski and Prof. Karl Böhringer

19:30 **General : KULV-E-ThA**
KU Leuven Nanocentre visit E - INVITATION ONLY - 15p
Venue - KU Leuven Nanocentre
 Chaired by: Ms. Elena Arbelo and Dr. Evangelos Gogolides and Mrs. Ritika Petersen and Prof. Francesco Gentile and Mrs. Regina Luttge and Dr. sohail faizan shaikh and Dr. Setareh Zahedi Azad and Mr. Ellen Ophuis and Mr. Ernest Fantner and Dr. Armin Knoll and Dr. Christelle Ghazaly and Prof. Akinobu Yamaguchi and Mr. Ebrahim Taiedinejad and Dr. Marianne GUILLEMOT and Dr. Markus Heyne

19:45 **General : ImecV-J-ThA**
imec visit J - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - EVEN groups
 Chaired by: Dr. Michael Muehlberger and Dr. Leo Schranzhofer and Dr. Pavel Kulha and Dr. Michael Haslinger and Ms. Sonja Kopp and Mr. Peter Bauer and Mr. Paul Moustiez and Dr. João Ribeiro and Mrs. Wendy Martinez and Prof. Yauheni Belahurau and Prof. Jungseok Heo and Prof. Bonghwan Kim and Donggyu Kim and Mr. JinSeong Oh and Dr. Bingdong Chang and Mr. Matteo Gardella and Prof. Stefan Johansson and Ms. Elin Rosén and Mr. Giovanni Niro and Ms. Ilaria Marasco

20:15 **General : ImecV-K-ThA**
imec visit K - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - ODD groups
 Chaired by: Mr. Lorenzo Marzano and Mr. Anton Karlsson and Mrs. Farnaz Rezaei and Ms. Andrea Spanou and Ms. Nuzhet Inci Kilic and Dr. Mohssen Moridi and Ms. Gaia de Marzo and Prof. Dimitrios-Nikolaos Pagonis and Mr. Xiyuan Liu and Mr. Dogan Yilmaz and Dr. Antonio Qualtieri and Mr. Andre Joppich and Dr. Heiko Reith and Mr. Hu Meng and Mr. Christian Anker Rosiek and Mr. Mathias Adelmark and Mr. Jesper Navne and Dr. Reyhaneh Jannesari and Mr. Mehdi Allameh

20:30 **General : KULV-F-ThA**
KU Leuven Nanocentre visit F - INVITATION ONLY - 15p
Venue - KU Leuven Nanocentre
 Chaired by: Dr. Jaelong Lee and Mr. YUJI WATANABE and Ms. Megan Havers and Mr. Ryan Adams and Dr. Mervyn E Jones and Dr. Zahid A K Durrani and Mr. Wenkun He and Mr. Karolis Parfeniukas and Ms. Noémie Bidoul and Dr. Dieter Nees and Dr. Barbara Stadlober and Dr. Gerburg Schider and Ms. Laura Angermann-Krammer and Ms. Rosemarie Ohanyan and Ms. Helge Mischke



Continued from **Thursday, 22 September**

20:45 **General : ImecV-L-ThA**
imec visit L - 60 min - INVITATION ONLY - 20p
Venue - imec vzw - EVEN groups
 Chaired by: Dr. Tao Chen and Prof. Toshiyuki Tsuchiya and Mr. Alessandro Cian and Mr. Md Mayen Uddin and Ms. Christina Breth Nielsen and Dr. Volker Nock and Prof. Massimo De Vittorio and Ms. Wei Shi and Mr. Dorian Herle and Mr. Gafaru Moro and Dr. Christian Helke and Prof. Martin Charlton and Mr. Cheng Xiang and Mr. Steffen Diez and Dr. Benedikt Stender and Dr. Francesca Costantini and Prof. Giampiero de Cesare and Ms. Alina Shumna and Mr. Paul Weitnauer and Mr. Ihninger Gerald

Friday, 23 September

08:30 **Keynote : MNE-YIA-FrM**
MNE Young Investigator Award Ceremony - 15min
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
 Chaired by: Dr. Evangelos Gogolides and Prof. Dieter P. Kern

Introducing the recipient of the 2022 Young Investigator Award
 » Prof. Evangelos Gogolides

08:45 **Keynote : PL-D-FrM**
Plenary Session D - 90min
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
 Chaired by: Dr. Luca Francioso and Dr. Evangelos Gogolides

PLENARY - Transfer-free multi-layer graphene as a platform for NEMS/MEMS sensors
 » [Prof. Sten Vollebregt](#)

PLENARY - Additively Manufactured "Zero-Power" Wireless sensors for IoT, Smart Cities, Smart Skins and Next-Generation Healthcare

» [Prof. Manos M. Tentzeris](#)

10:15 **Keynote : CS-FrM**
Best MNE-ES Student Oral Presentation Award - 15min
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
 Chaired by: Mr. Boris Kennes and Prof. Massimo De Vittorio and Prof. Jean-Paul Viricelle

Best MNE-ES Student Oral Presentation award
 » Prof. Jean-Paul Viricelle, Prof. Massimo De Vittorio and Mr Boris Kennes

10:30 **Keynote : CIC-FrM**
MNE-ES 2022 Closing Ceremony
Venue - Central Auditorium Gasthuisberg (CAG) - 826 seats (room 04.201)
 Chaired by: Dr. Jean-Francois de Marneffe and Mrs. Gabi Grützner and Prof. Jean-Paul Viricelle and Prof. Michael Kraft and Prof. Irene Taurino

11:15 **Oral : T4-K-FrM**
Oral Track 4 - Session K - Biosensors 2- 90min
Venue - Groot Aula GA3 - 392 seats (room 04.28)
 Chaired by: Prof. Leandro Lorenzelli and Prof. Donatella Puglisi

Molecular Scale Spatio-Chemical Control of the Activating-Inhibitory Signal Integration in NK Cells
 » [Mrs. Esti Toledo](#) , Dr. Guillaume Le Saux , Prof. Angel Porgador , Prof. Mark Schwartzman

Functionalized Polymer Brush Structures for Point-Of-Care Diagnostics of DNA and RNA
 » Dr. Maryam Moazeni , Dr. Philipp Berger , [Dr. Celestino Padeste](#)



Continued from **Friday, 23 September**

Microfluidic SERS biosensor for the detection of tetracyclines in food matrices

» [Dr. Alessandro Chiado'](#), Dr. Sofia Bertone, Dr. Daniel Montesi, Dr. Niccolò Paccotti, Dr. Chiara Novara, Dr. Paola Rivolo, Prof. Fabrizio Giorgis

Superhydrophobic concentrator coupled with a Surface Enhanced Raman Spectroscopy device for extraterrestrial sample analysis

» [Mr. Victor Fabre](#), Mr. Franck Carcenac, Mr. Adrian Laborde, Mr. Jean-Baptiste Doucet, Prof. Christophe Vieu, Dr. Emmanuelle Trévisiol, Dr. Philippe Louarn

Enzymatic biosensing using Ru electrodes

» [Dr. Rita Vos](#), Mr. Andrey Kossarev, Mrs. Inge Vaesen, Dr. Thierry Conard, Dr. Karolien Jans, Dr. Olivier Henry

(ABSENT) - Enhanced performance of Electrolyte-Gated Organic Transistors through Ti3C2 MXene gating

» [Mr. Matteo Segantini](#), Mr. Matteo Angelozzi, Dr. Matteo Parmeggiani, Dr. Alberto Balleio, Prof. Thierry Ouisse, Dr. Hanna Pazniak, Prof. Jesus Gonzalez-Julian, Dr. Simone Luigi Marasso, Prof. Matteo Cocuzza

11:15

Oral : T1-G-FrM

Oral Track 1 - Session G - e-beam lithography - 105min

Venue - Groot Aula GA1 - 210 seats (room 04.05)

Chaired by: Dr. Adam M. Schwartzberg and Silvia Armini

TRACK INVITED - Manipulation of materials at Single Digit Nanometer scale through patterning, deposition and processing

» Dr. Stefano Cabrini, [Dr. Adam M. Schwartzberg](#)

Optical metasurfaces fabricated by electron-beam lithography with cell projection

» [Dr. Mathias Hädrich](#), Dr. Thomas Siefke, Mr. Michael Banasch, Mrs. Ines Stolberg, Prof. Uwe Zeitner

Transferring metasurfaces onto optical fibres

» [Dr. Richard Cousins](#), Dr. Fei He, Dr. Rafael Fuentes Dominguez, Prof. Christopher Mellor, Dr. George Gordon

Wafer scale mix and match fabrication of silicon nanowires for experimentation in quantum technologies

» [Mr. David Bricio](#), Dr. Alberto del Moral, Dr. Jordi Antoja, Mr. Albert Guerrero, Mr. Javier Sánchez, Mr. Alberto García, Dr. Xavier Borrisé, Prof. Joan Bausells, Prof. Francesc Perez-Murano, Dr. Jordi Llobet Sixto

Intra-level Mix and Match Approach of Resist ma-N 1402 for E-beam and i-line Stepper Lithography and Structures below the CD

» [Dr. Christian Helke](#), Ms. Cansu Hanim Canpolat-Schmidt, Dr. Georg Heldt, Mr. Sebastian Schermer, Dr. Anja Voigt, Dr. Danny Reuter

Super-Resolution Fluorescence Microscopy on E-beam Resist Film during Electron Beam Exposure for Mask Patterning Process

» [Mr. Sukjong Bae](#), Mr. Flip de Jong, Mr. Rik Nuyts, Mr. Rahul Sasikumar, Dr. Haifeng Yuan, Mr. Seongjune Min, Dr. Jin Choi, Dr. Sanghee Lee, Prof. Johan Hofkens

11:15

Oral : T3-H-FrM

Oral Track 3 - Session H - Optics & photonics Part 2 - 90min

Venue - BMW1 - 252 seats (room 04.223)

Chaired by: Prof. Frieder Lucklum and Prof. Jean-Paul Viricelle

TRACK INVITED - Silicon Photonic MEMS for Efficient Scaling of Programmable Integrated Optics

» [Prof. Niels Quack](#), Dr. Alain Yuji Takabayashi, Dr. Hamed Sattari, Mr. Pierre Edinger, Mr. Gaehun Jo, Mr. Simon Bleiker, Dr. Carlos Errando Herranz, Prof. Kristinn Gylfason, Prof. Frank Niklaus, Dr. Umar Khan, Dr. Peter Verheyen, Mr. Arun Kumar Mallik, Mr. Jun Su Lee, Dr. Moises Jezzini, Dr. Pádraic Morrissey, Dr. Cleitus Anthony, Prof. Peter O'Brien, Prof. Wim Bogaerts



Continued from Friday, 23 September

Enhancing Si₃N₄ grating couplers on an ultralow-loss photonic platform with self-aligned amorphous Si

» [Dr. Stephan Suckow](#), Mr. Bartos Chmielak, Mr. Jorge Parra, Dr. Vanessa Cunha Duarte, Dr. Teresa Mengual, Dr. Miguel Angel Piqueras, Prof. Anna Lena Giesecke, Prof. Max Lemme, Prof. Pablo Sanchis

Functionalized optical fiber tips by 3D direct laser writing

» [Dr. Koen Vanmol](#), Mr. Athanasios Kyriazis, Dr. Gebirie Yizengaw Belay, Prof. Hugo Thienpont, Prof. Jurgen Van Erps

Fabrication and simulation of III-V nanowire-to-nanowire optical communication circuits for neuromorphic nanophotonics

» [Mr. Vidar Flodgren](#), Dr. David Winge, Prof. Anders Mikkelsen

Spectral Characterization of Highly Selective Emission by an Aperiodic Cavity-Enhanced Tamm Plasmon-Polariton Emitter

» [Mr. Gerald Pühringer](#), Mrs. Dinah Brandner, Mrs. Christina Tischler, Dr. Reyhaneh Jannesari, Mr. Thomas Grille, Dr. Veronika Putz, Prof. Bernhard Jakoby

11:15

Oral : T2-K-FrM

Oral Track 2 - Session K - Metasurfaces & Metamaterials - 90min

Venue - Groot Aula GA2 - 474 seats (room 04.14)

Chaired by: Prof. Max Lemme and Dr. Frederik Ceyskens

On-chip integrated lateral and vertical tunable metasurfaces for 3D imaging

» [Dr. Yanfen Zhaj](#), Dr. Takashi Sasaki, Dr. Mohssen Moridi, Dr. Ronghui Lin, Mrs. Zahrah Alnakhli, Dr. Lixiang Wu, Prof. Atif Shamim, Prof. Xiaohang Li, Prof. Mohammad Younis, Prof. Kazuhiro Hane

TRACK KEYNOTE - MEMS-actuated metasurface Alvarez lens

» [Prof. Karl Boehringer](#)

Nanofabrication of Silicon Chiral Metasurfaces for giant Non-Linear Circular Dichroism

» Mr. Luca Fagiani, Dr. Marco Gandolfi, Dr. Attilio Zilli, Dr. Andrea Tognazzi, Dr. Davide Rocco, Dr. Johann Osmond, Prof. Marco Finazzi, Prof. Michele Celebrano, Dr. Luca Carletti, Prof. Costantino De Angelis, [Dr. Monica Bollani](#)

REMOTE - Fabrication of MEMS-integrated Varifocal Metalens for the Visible Spectrum

» [Ms. Zheyi Han](#), Dr. Shane Colburn, Dr. Ning Cao, Dr. Demis John, Prof. Arka Majumdar, Prof. Karl Böhringer