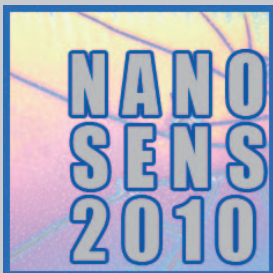


2 - 3 December 2010, Tech Gate Vienna, Austria

PROGRAM



**NANOSENSORS
FOR
INDUSTRIAL
APPLICATIONS**

INVITATION

Welcome to the 3rd International Conference NANOSENS 2010!

NANOSENS 2010 highlights latest developments of nanosensors for industrial applications!

Future trends in semiconductor and sensor technology foresee the assembly and integration of devices at multiple levels, ranging from nano- to micro- and macroscale. The nanoscale provides enhanced performance, the microscale implements various material platforms to achieve a broad range of functionalities, and the macroscale enables interaction with the real world.

TOPICS:

- HETEROGENEOUS INTEGRATION
- NANOSENSORS FOR BIOMEDICAL AND ENVIRONMENTAL APPLICATIONS
- FUNCTIONAL LAYERED SYSTEMS
- 3D-SYSTEM INTEGRATION

NANOSENS 2010 POSTER AWARD

All poster contributions will participate in the poster competition! An independent jury will award prices to the best posters.

SOCIAL EVENT

A get-together is organised at a traditional „Wiener Heurigen“ in the evening of the first conference day (included in the registration fee).

HOTEL ACCOMMODATION

A list of hotels can be found on the conference-website www.nanosens.at.

EXHIBITION

The exhibition is an excellent opportunity to receive maximum marketing exposure in addition to gathering knowledge and networking with key experts in the fields of Nanotechnology.

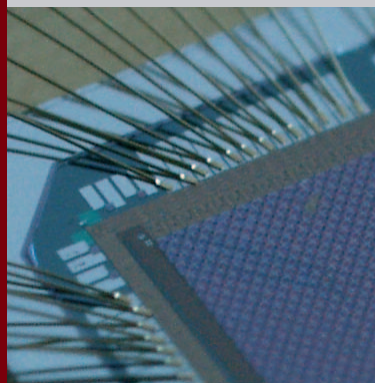
REGISTRATION

Please register online on our conference website www.nanosens.at
Closing date:

28 November 2010

CONFERENCE FEE

Early bird fee: € 370,-
(until **7 November 2010**)
Regular fee: € 420,-
Student fee: € 250,-
One-day-tickets: € 250,-
(all prices excl. 10% VAT)



PROGRAM

2ND December 2010

8:15 Registration

9:00 Welcome & Opening

Wolfgang Knoll, Scientific Managing Director
AIT Austrian Institute of Technology GmbH, Austria

Alexander Pogany, Research Policy Expert, Federal Ministry of Transport,
Innovation and Technology, Austria

Hubert Brückl and **Anton Köck**, Health & Environment Department,
Nano Systems, AIT Austrian Institute of Technology GmbH, Austria

Heterogeneous Integration

9.20 **III-V Nanowires and their Potential for Integration with Silicon**
Lars Samuelson (plenary), Nanometer Structure Consortium, Lund
University, Sweden

10.05 **Nano- & Heterogeneous Integration Technologies for Chemical Sensing**
Maximilian Fleischer (invited), Siemens AG - Corporate Research &
Technology, Munich, Germany

10:40 Coffee Break

11:10 **Integrated Optical Sensor Array based on ring-shaped Organic
Photodiodes and organic LEDs**
Tobias Abel, Graz University of Technology, Austria

11.25 **Nanofabrication of high frequency piezoresistive nanoelectromechanical
3C-SiC**
Rachida Boubekri, Laboratoire de Photonique et Nanostructures, France

11.40 **An in-line Probe Integrating Infrared Spectroscopy and Ultrasonic
Manipulation of Cells**
Stefan Radel, Vienna University of Technology, Austria

11:55 **Functional Chip Surfaces in a Diagnostic Test System for Cancer Screening**
Ursula Sauer, Health & Environment Department, AIT Austrian Institute of
Technology GmbH, Seibersdorf, Austria

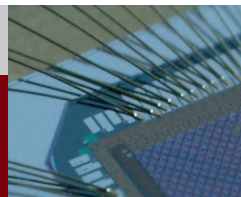
12:10 Lunch Break/Poster Session/Exhibition Show

PROGRAM

2ND DECEMBER 2010

Nanosensors for Biomedical and Environmental Applications

- 13:10 A Nanoscale Artificial Nose for Screening and Diagnosing Disease by Breath Testing**
Hossam Haick (invited), Technion - Israel Institute of Technology, Israel
- 13:45 Biosensoric Applications of Metal Nanoparticles**
Wolfgang Fritzsche (invited), Institute of Photonic Technology IPHT, Jena, Germany
- 14:20 Self-Consistent 3D Simulations of BioFETs**
Stefan Baumgartner, Wolfgang Pauli Institute, University of Vienna, Austria
- 14:35 switchSENSE – a novel biosensing principle to detect and analyze molecules on a chip**, **Ulrich Rant**, Walter Schottky Institut, Technische Universität München, Germany
- 14:50 Coffee Break/Poster Session/Exhibition Show**
- 15:50 FIB-Nanotomography of Biological Cell Tissue and Investigation of Interfaces between Tissue and Biocompatible Materials**
Peter Gnauck, Carl Zeiss NTS GmbH, Oberkochen, Germany
- 16:05 Biomaterials and Scaffolds for Advanced Therapies in the Regeneration of Connective Tissues**
Nuno M. Neves, 3B's Research Group, University of Minho, European Institute of Excellence / Tissue Engineering and Regenerative Medicine, Portugal
- 16:20 Detection of Mercury Based on Interaction of Single-strand DNA and Hybridized DNA with Gold Nanoparticles**
Sam Fong Yau Li, National University of Singapore, Singapore
- 16:35 Multi-walled carbon nanotubes in electrochemical sensors and biosensors**
Nikos G. Tsierkezos, Technische Universität Ilmenau, Germany
- 16:50 Gas sensing with vertical functionalized InAs nanowires**
Peter Offermans, Holst Centre/imec-nl, Eindhoven, Netherlands
- 17:05 Take Advantage of your 50/50 Chance for Subsidies in the Research Support in Austria**
Matthias Bruck, ABA-Austrian Business, Vienna, Austria
- 18:30 Evening Event - „Wiener Heurigen“**



PROGRAM

3RD DECEMBER 2010

- 9.00 National Funding for Nanosciences and Nanotechnology**
Margit Haas, FFG-Austrian Research Promotion Agency, Austrian Nano Initiative, Austria
- 9.10 European Funding for Nanosciences, Nanotechnologies, Materials and new Production Technologies (NMP) in FP7**
Gerald Kern, FFG - Austrian Research Promotion Agency, European and International Programmes, Austria

Functional Layered Systems

- 9.20 Spintronic platforms for biological and biomedical applications**
Paulo J.P. de Freitas (invited), INESC Microsistemas e Nanotecnologias INESC, Portugal
- 9.55 Nanosystems for Biomedical Applications**
Gerald Urban (invited), IMTEK - Institute for Mikrosystem Technology, University of Freiburg, Germany

10:30 Coffee Break

- 11:00 Transparent Conductive Oxide Nanoparticle Functionalization for Surface Plasmon Resonance Sensors**
Jovan Matovic, Vienna University of Technology, ISAS - Institute for Sensors and Actuators Systems, Austria
- 11.15 Detection of Neutral Nanoparticles using a Superconducting Wire**
Markus Marksteiner, University of Vienna, Quantum&Nanophysics, Austria
- 11.30 Measurement and Monitoring System for Forming Processes based on Piezoresistive Thin Film Systems**
Saskia Biehl, Fraunhofer-Institute for Surface Engineering and Thin Films, Braunschweig, Germany
- 11.45 Flame-made Pt-doped WO₃ Sensors for Hydrogen**
Sukon Phanichphant, Materials Science Research Center, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand

12:00

Lunch Break
Poster Session / Exhibition Show

PROGRAM

3RD DECEMBER 2010

3D-System Integration

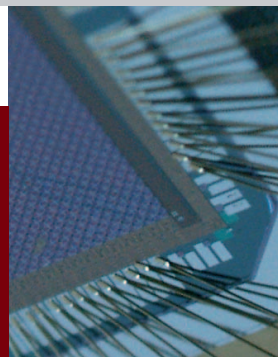
- 13.00 Integrated MEMS Solutions for Biomedical Applications**
Hoc Khiem Trieu (invited), Fraunhofer Institute of Microelectronic Circuits and Systems IMS, Duisburg, Germany
- 13.35 Opportunities for 3D IC and Sensor Integration**
Martin Schrems (invited), austriamicrosystems AG, Austria
- 14:10 Lithography and Wafer Bonding Solutions for 3D Integration**
Thorsten Matthias, EV Group, Austria
- 14.25 Calibrated Nanoscale Measurements using a Scanning Microwave Microscope**
Hans-Peter Huber, University of Linz, Christian Doppler Laboratory, Austria
- 14.40 ENIAC-Austria Plattform**
Johann Massoner, Infineon Technologies Austria AG, Austria

14:50 Coffee Break

- 15:20 Nano/Bio/CMOS Interfaces and Systems for electrochemical sensing**
Sandro Carrara (invited), EPFL Lausanne, Switzerland

15:55 Poster Award Ceremony Closing Celebration

17:00 End of the Conference!



NANOSENS 2010

2 - 3 December 2010

INFORMATION AND REGISTRATION

I www.nanosens.at

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F +43-(0)50550-4399

VENUE

AIT Austrian Institute of Technology GmbH

Tech Gate Tower

Donau-City-Strasse 1

1220 Vienna, Austria

How to get there:

[www.ait.ac.at/contact/contact_](http://www.ait.ac.at/contact/contact_techgate_en.html)

[techgate_en.html](http://www.ait.ac.at/contact/contact_techgate_en.html)

IMPORTANT DEADLINES

Early registration discount:

7 November 2010

Closing date for registration:

28 November 2010

LOCAL ORGANISATION

AIT Austrian Institute of Technology GmbH

Hubert Brückl, Anton Köck

Kerstin Formanek

IN COOPERATION WITH

Techkonnex - High-Tech Promotion

Margit Malatschnig



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