



SCIENCE MEETS BUSINESS - ADVANCED MATERIALS

8 December 2015, Erwin Schrödinger-Zentrum
Rudower Chaussee 26, 12489 Berlin

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Tuesday, 8 December 2015, 2.00 pm
Erwin Schrödinger-Zentrum, Room 0'119
Rudower Chaussee 26, 12489 Berlin

The events series “Wissenschaft trifft Wirtschaft / Science meets business” serves as a platform for the interdisciplinary exchange of knowledge and technology between science and business.

This year's event focuses on Advanced Materials. Companies will present their research questions in a short pitch. At the same time scientists from Humboldt-Universität zu Berlin (HU) are going to talk about their current research and their experience with working in joint R&D projects with partners from industry. The event aims at bringing together research and application. Companies can discover new approaches to the challenges they face and scientists may get new impulses for their future research.

Registration

The participation in the event is free of charge. Due to the limitation of space, registration is required. If you would like to attend, please e-mail Ms. Tianni Wei with the following information: name, company/institution, position and e-mail address.

Tianni Wei
Innovation Management
Tel: 030 2093 70764
tianni.wei@events.humboldt-innovation.de

PROGRAM

1.30 pm	ADMISSION
2.00 – 2.10 pm	WELCOME SPEECH Prof. Peter A. Frensch, Vice President for Research Affairs, HU
2.10 – 2.25 pm	THE CHALLENGE OF BRINGING NEW MATERIALS TO APPLICATION IN PRODUCTS Dr. Miguel Carrasco, Cambridge Display Technology Ltd.
2.25 – 2.35 pm	UPSCALING FUNCTIONAL MATERIALS RESEARCH, EQUIPMENT AND DATA MANAGEMENT Torben Damgaard Nielsen, FOM Technologies
2.35 – 2.45 pm	INTEGRATED METROLOGY FOR ADVANCED MATERIALS AND ADVANCED PROCESSES Dr. Thomas Zettler, LayTec AG
2.45 – 2.55 pm	SOLES OF NANOSCOPIC METAL FLUORIDES PROVIDE NEW OPPORTUNITIES FOR THEIR APPLICATION Prof. Erhard Kemnitz, nanofluor GmbH
2.55 – 3.05 pm	SURFACE NANO ANALYSIS UNDER ENVIRONMENTAL CONDITIONS Dr. Thorsten Kampen, SPECS Surface Nano Analysis GmbH
3.05 – 3.25 pm	NEW SYNTHESIS APPROACHES OF FUNCTIONAL HYBRID NANOMATERIALS Prof. Nicola Pinna, Department of Chemistry, HU
3.25 – 3.50 pm	COFFEE BREAK



WWW.HUMBOLDT-INNOVATION.DE/WTW2015DEZ

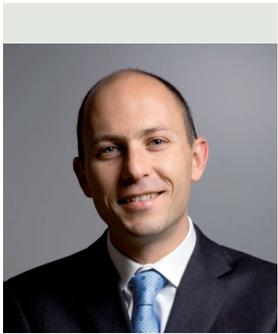
3.50 - 4.00 pm	DBGLOVE – ENABLING TOUCH-BASED INTERACTION USING WEARABLES Dr. Nicholas Caporusso, intact Healthcare
4.00 - 4.10 pm	PRINTING OLEDs Marcin Ratajczak, SIOD
4.10 - 4.20 pm	FUTURE STARTS NOW, SEEK INNOVATIONS, EXPLORE THE POTENTIALS AND DEVELOP INCREDIBLE SOLUTIONS Alexander Gerfer, Pierre Lohrber, Würth Elektronik eiSos GmbH & Co. KG
4.20 - 4.40 pm	KNOWLEDGE GENERATES VALUE – A PERSONAL REPORT ON 15 YEARS OF COOPERATION BETWEEN SCIENCE AND INDUSTRY Prof. Emil J. W. List-Kratochvil, IRIS Adlershof & Departments of Physics & Chemistry, HU
4.40 - 4.50 pm	IRIS ADLERSHOF - AN INNOVATIVE RESEARCH PLATFORM OF HUMBOLDT-UNIVERSITÄT ZU BERLIN Dr. Nikolai Puhlmann, IRIS Adlershof, HU
4.50 - 5.00 pm	PROCESSING OF ORGANIC ELECTRONIC DEVICES – FROM LAB TO FAB Dr. Christine Boeffel, Fraunhofer IAP
5.00 - 5.10 pm	PRESENTATION OF INNOVATION NETWORK FOR ADVANCED MATERIALS (IAM) Jonas Pauly, IAM
5.10 – 6.15 pm	BUFFET & NETWORKING
6.15 – 8.00 pm	PRIVATE WORKSHOPS

HUMBOLDT-UNIVERSITÄT ZU BERLIN



PROF. PETER A. FRENSCH

Peter A. Frensch is Vice President for Research Affairs at Humboldt-Universität zu Berlin, an office he assumed in 2011. Additionally, he is professor of General Psychology at HU and served as Dean of the Faculty of Mathematics and Natural Sciences II in 2009/2010. Previously, he held posts at the University of Missouri-Columbia as well as the Max Planck Institute for Human Development.



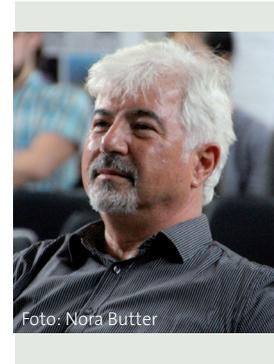
PROF. NICOLA PINNA

Nicola Pinna joined Humboldt-Universität zu Berlin in 2012 as Professor for Functional Materials at the Department of Chemistry. His research focuses on the development of novel routes to nanostructured materials, their characterization, and the study of their physical properties. He previously worked at the Max Planck Institute of Colloids and Interfaces, Martin-Luther-Universität Halle-Wittenberg, the University of Aveiro in Portugal and Seoul National University in Korea.



PROF. EMIL J.W. LIST-KRATOCHVIL

Emil J.W. List-Kratochvil joined Humboldt-Universität zu Berlin in 2015 as Professor for Hybrid Devices at the Departments of Physics and Chemistry. He is also a member of the Integrative Research Institute for the Sciences (IRIS Adlershof). In his research, he focuses on electronic and optoelectronic components based on organic and hybrid materials, additive resource-efficient deposition techniques (printing) and in-situ nanostructuring and synthesis methods. He also has many years of experience with working in joint R&D projects with partners from industry.



INTEGRATIVE RESEARCH INSTITUTE FOR THE SCIENCES (IRIS ADLERSHOF)

DR. NIKOLAI PUHLMANN

Nikolai Puhlmann studied physics at Humboldt-Universität zu Berlin and completed his Ph.D. in experimental solid state physics in 1990. Subsequently, he worked as a research associate at HU's Department of Physics and, from 2000, as a scientific officer at HU's Research Service Centre. He has been managing IRIS Adlershof's office since its establishment in 2009.

FRAUNHOFER INSTITUTE FOR APPLIED POLYMER RESEARCH (FRAUNHOFER IAP)



DR. CHRISTINE BOEFFEL

Christine Boeffel is a chemist by training with a focus on polymer research and has been working at Fraunhofer IAP since 2007. She is responsible for projects related to process development of organic electronic devices. This includes solution processing of active organic materials as well as metal inks. Another focus of Fraunhofer IAP's R&D is on the device performance with respect to reliability and lifetime.

INNOVATION NETWORK FOR ADVANCED MATERIALS (IAM)



JONAS PAULY

Jonas Pauly is an entrepreneur and Berlin based startup consultant. Besides managing the IAM, he passionately helps young hardware startups to produce and ship their first batch. Previously, he was the Managing Director of HARDWARE.co, the first hardware accelerator in Berlin. He considers himself as a hardware enthusiast and gladly connects people with the resources they need.

CAMBRIDGE DISPLAY TECHNOLOGY LTD. DR. MIGUEL CARRASCO



MIGUEL CARRASCO is the Programme Manager for CDT's Lighting Team, responsible for providing a fundamental understanding and clear design rules for materials, processes and devices targeting commercially viable platforms. He holds a Ph.D. in Physics and has gained extensive work experience in the plastic electronics field as a research scientist and project leader in various organizations.

ABOUT INTACT HEALTHCARE

Cambridge Display Technology (CDT) is the leading developer of technologies based on polymer light emitting diodes (P-OLEDs) and part of the Sumitomo Chemical Group. It is a global organization running collaborative projects with many consumer electronics companies. CDT's technology allows product designers to create generations of consumer and business products with exciting new levels of performance.

KEYNOTE

"THE CHALLENGE OF BRINGING NEW MATERIALS TO APPLICATION IN PRODUCTS"

FOM TECHNOLOGIES TORBEN DAMGAARD NIELSEN



TORBEN DAMGAARD NIELSEN is founder and director of FOM Technologies. He is an expert in the field of business development and innovation as well as business management with a focus on providing quality equipment designed for research by researchers, tech transferring R&D concepts, and prototypes from laboratory to market.

ABOUT FOM TECHNOLOGIES

FOM Technologies services material researchers with process equipment and software for upscaling of their effort of improving TRL levels towards commercial application. Services comprise standard and custom printing as well as coating equipment, test equipment and management of research data through the FOM Mercury R&D lab management software, and assisting researchers to improve their research experience bringing technology forward.

THE PITCH

"UPSCALING FUNCTIONAL MATERIAL RESEARCH, EQUIPMENT AND DATA MANAGEMENT"

A brief introduction to FOM Technologies services, equipment and software solutions for material R&D. Challenges when moving from spin-coating to large area commercial relevant coating methods.

INTACT HEALTHCARE DR. NICOLAS CAPORUSSO



NICHOLAS CAPRUSSO, CEO, holds a Ph.D. in Computer Science and Engineering, is a Fulbright scholar in technology entrepreneurship and has 10 years of experience as a researcher in human-computer interaction.

ABOUT INTACT HEALTHCARE

INTACT develops hardware and software systems for improving the quality of life of people with a disability, patients, and the elderly. Our technology consists of wearable devices that can be connected to the Internet of Things.

THE PITCH “DBGLOVE–ENABLING TOUCH-BASED INTERACTION USING WEARABLES”

The pitch describes an innovative device designed for enabling blind and deaf-blind people interact with mobile devices. How can real tactile sensations be delivered with actuators?

LAYTEC AG DR. THOMAS ZETTLER



THOMAS ZETTLER is co-founder and CEO of LayTec AG. He studied physics and obtained a Ph.D. at Humboldt-Universität zu Berlin. After several postdoc positions, he joined Technische Universität Berlin as the head of the “MOCVD in-situ metrology” group at the Institute of Solid State Physics. After co-founding LayTec he moved from academia to industry in 2001.

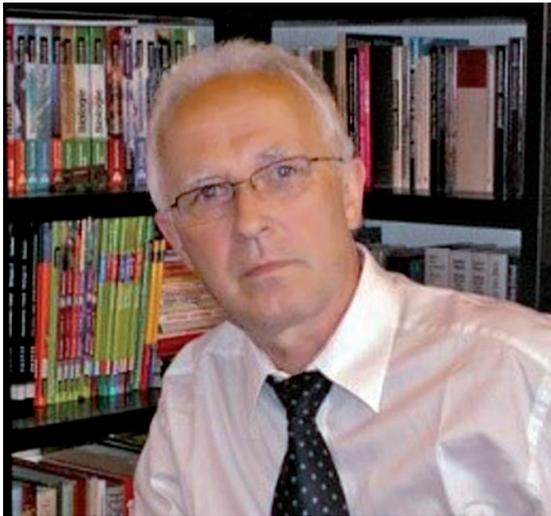
ABOUT LAYTEC AG

LayTec is a major provider of integrated metrology for thin-film deposition and other high value generating processes. LayTec’s equipment is used in a broad range of applications like optoelectronics, electronics, PV, displays, optics and photonics, SEMI and flash memory production, the automotive industry and others.

THE PITCH “INTEGRATED METROLOGY FOR ADVANCED MATERIALS AND ADVANCED PROCESSES”

Are there new metrology methods and related analysis algorithms for monitoring and improving the manufacturing processes of advanced materials?

NANOFLUOR GMBH PROF. ERHARD KEMNITZ



ERHARD KEMNITZ, founder of nanofluor GmbH, is professor at the Department of Chemistry at Humboldt-Universität zu Berlin. He mainly works in the field of inorganic fluorine chemistry. His research achievements are reflected in about 420 scientific publications, 11 review articles, 7 book chapters, 3 text books and 14 patents.

ABOUT NANOFLUOR GMBH

nanofluor GmbH is a spin-off of the Department of Chemistry, Humboldt-Universität zu Berlin holds a stake in the company. Based on its patents, nanofluor produces nanoscopic metal fluoride particles which are relevant for optics, ceramics, organic-inorganic composites, dental or heterogeneous catalysis.

THE PITCH

“SOLES OF NANOSCOPIC METAL FLUORIDES PROVIDE NEW OPPORTUNITIES FOR THEIR APPLICATION”

Soles and powders of nanoscopic metal fluorides offer several potential applications in different areas of optics, due to their unique optical properties. Are those applications identified adequately?

SIOD MARCIN RATAJCZAK

MARCIN RATAJCZAK is founder and CEO of SIOD. He holds an MBA from the Freie Universität Berlin and has gained his first entrepreneurial experiences already during his studies. He has founded several businesses before starting to work at SIOD in 2012.



ABOUT SIOD

SIOD brings paper to life by printing simple displays. They allow paper to light up, show simple animations and will provide additional digital content on paper in the future.

THE PITCH

“PRINTING OLEDs”

The aim of the company was to develop a flexible and energy efficient product that can be integrated into paper. Therefore, the main focus was on the reduction of the production costs for OLEDs by switching the process from evaporation to ink-jet printing.

SPECS SURFACE NANO ANALYSIS GMBH DR. THORSTEN U. KAMPEN



THORSTEN U. KAMPEN is
Chief Business Development
Officer of SPECS GmbH.

ABOUT SPECS GMBH

SPECS leads the way in state-of-the-art technology, cutting-edge components and individually designed complex systems for surface nanoanalysis.

THE PITCH

“SURFACE NANO ANALYSIS UNDER ENVIRONMENTAL CONDITIONS”

SPECS offers solutions for spectroscopic and microscopic studies of liquid and solid surfaces under ambient conditions. Typical fields of application are materials science, semiconductor technology, surface chemistry, catalysis, electrolysis, or environmental studies.

WÜRTH ELEKTRONIK EISOS GMBH & CO. KG ALEXANDER GERFER & PIERRE LOHRBER



ALEXANDER GERFER
CTO Würth Elektronik

PIERRE LOHRBER
Division Manager
eiCap BU

ABOUT WÜRTH ELEKTRONIK

Würth Elektronik eiSos GmbH – the largest independent and family owned German manufacturer of passive components with more than EUR 400m T/O. Innovation is our driving force to achieve and maintain future success, keep the standards high, push new technologies like wireless power and energy harvesting and be prepared for the future – engagement as one main sponsor of the Formula E.

THE PITCH

“FUTURE STARTS NOW, SEEK INNOVATIONS, EXPLORE THE POTENTIALS AND DEVELOP INCREDIBLE SOLUTIONS”

We are going to investigate the advantages/disadvantages of regular EDLC in comparison to thin film supercapacitors, where the two main questions occur: What are the physical advantages/disadvantages of thin film supercapacitors in comparison to standard EDLC – Electric double layer capacitors? How will thin film supercapacitors change their physical properties over time (HAST/HALT)?

Hosted by



In cooperation with



WISTA-MANAGEMENT GMBH



EUROPEAN UNION
European Regional
Development Fund

Dieses Projekt wird aus Mitteln der Länder Berlin und Brandenburg gefördert, kofinanziert von der Europäischen Union – Europäischer Fonds für Regionale Entwicklung. Investition in Ihre Zukunft!