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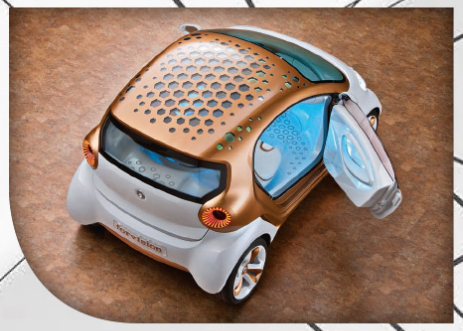
Messe München International

LOPEC 2015
Conference Program



7th International Exhibition and Conference for the Printed Electronics Industry

www.lopec.com

Exhibition: March 4–5, 2015
Conference: March 3–5, 2015
Messe München, Germany

LOPEC
Printed Electronics—We Build the Market

LOPEC
Printed Electronics—We Build the Market

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Customized Building Blocks for Your Participation | Program Overview (for details see www.lopec.com)

Conference Program – Day 1
Tuesday - March 3, 2015

09:00 am | Plenary Session – Room 13b
- Printed Electronics Solutions for IoE

Short Courses	Business Conference
09:30 am Materials — Room 13a	**09:30 am** Business with Printed Electronics — Room 13b
COFFEE BREAK	
11:30 am Devices — Room 13a	**11:30 pm** Financing in Start-up Environments — Room 13b
LUNCH	
02:00 pm Printing and Patterning — Room 13a	**02:00 pm** New Applications — Room 13b
COFFEE BREAK	
04:00 pm Applications — Room 13a	**04:00 pm** Market and Industry Forecasts — Room 13b

Conference Program – Day 2
Wednesday - March 4, 2015

09:00 am | Plenary Session – Room 14b
- Opportunities through Sensors in Home Appliances
- Perovskites – Old Material, Bright New Future

COFFEE BREAK

Technical Conference		Scientific Conference	
11:30 am Flexible Displays — Room 13a	**11:30 am** Stretchable and Wearable Electronics — Room 13b	**11:30 am** Devices I: OLED — Room 14a	**11:30 am** Printed Electrodes I: Inorganic Conductors, Materials and Applications — Room 14c
LUNCH			
02:00 pm Touch — Room 13a	**02:00 pm** Collaboration Research and Innovation Projects — Room 13b	**02:00 pm** Devices II: OLED and OFET — Room 14a	**02:00 pm** Printed Electrodes II: Inorganic Conductors, Printing and Sintering — Room 14c
COFFEE BREAK			
04:00 pm Encapsulation — Room 13a	**04:00 pm** Upscaling Production and 3D Printing — Room 13b	**04:00 pm** Devices III: OPV — Room 14a	**04:00 pm** Printed Electrodes III: Transparent Electrodes — Room 14c
06:00 pm **Poster Session** – ICM Foyer		**06:00 pm** **Poster Session** – ICM Foyer	

08:00 pm | LOPEC Dinner and Awards

EXHIBITION – Hall B0
Start-up FORUM
EXHIBITOR FORUM

Conference Program – Day 3
Thursday - March 5, 2015

09:00 am | Plenary Session – Room 14b
- OLED in Automotive Lighting: Opportunities & Challenges
- Printed Electronics for Adherence: Smart Blisters in the Real World
- Printed Electronics for Consumer Goods
- Wearable and beyond wearable electronics

COFFEE BREAK

Technical Conference		Scientific Conference	
11:30 am Health and Wellbeing — Room 13a	**11:30 am** Materials — Room 13b	**11:30 am** Devices IV: OPV and Photomemory — Room 14a	**11:30 am** High Resolution Patterning Processes — Room 14c
LUNCH			
02:00 pm Smart Systems — Room 13a	**02:00 pm** Lighting — Room 13b	**02:00 pm** Devices V: Encapsulation and Thermoelectric Generator — Room 14a	**02:00 pm** Printing and Processing — Room 14c
COFFEE BREAK			
04:00 pm Smart Systems — Room 13a	**04:00 pm** Energy — Room 13b	**04:00 pm** Devices VI: Sensors — Room 14a	

EXHIBITION – Hall B0
EXHIBITOR FORUM

Plenary Session 2015 | Tuesday, March 3, 2015 | Room 13b

Plenary Session

09:05 am **Printed Electronics Solutions for IoE**
Dr. Davor Sutija
Thinfilm / Evrythng, CEO, Norway

Short Courses 2015 | Tuesday, March 3, 2015 | Room 13a

Materials (09:30 am — 11:00 am)

Materials for Organic Electronics
Prof. Mike Turner
University of Manchester, UK

Devices (11:30 am — 01:00 pm)

Device Physics of Organic TRansistors
Prof. Henning Sirringhaus
Cavendish Laboratory, University of Cambridge, Cambridge CB3 0HE, UK

Printing and Patterning (02:00 pm — 03:30 pm)

Patterning processes and functional printing in conventional print processes
Prof. Dr.-ing. Gunter Huebner
Hochschule der Medien (HdM) Stuttgart, Germany

Applications (04:00 pm — 05:30 pm)

Printed electronics and Hybrid Systems for Healthcare
Prof. Matti Mäntysalo
Tampere University of Technology, Finland

Business Conference 2015 | Tuesday, March 3, 2015 | Room 13b

End User Needs

09:30 am **Automotive Curved Touch Applications**
Mr. Kai Hohmann
Continental Automotive GmbH, Group Leader Center of Competence Display, Senior Technical Expert Imaging and Touch Devices I ID RD CoC D E3, Division Interior - Instrumentation & Driver HMI , Germany

Business with printed electronics

Organic Semiconductors for Truly Flexible Displays & Electronics
Mr. Mike Cowin
SmartKem, Head of Strategic Marketing, UK

09:50 am **How to successfully bring a new material technology into production**
Dr. Rahul Gupta
Cambrios Technologies, Senior Director BizDev, USA

10:10 am **An Adaptable, Flexible Transistor Platform the Accelerate Market Development**
Mr. Simon Jones
FlexEnable Ltd, Commercial Director, UK

10:30 am **Solar Active Building Envelopes Powered by HeliaFilm®**
Mr. Aron Guttowski
Heliatek GmbH, Business Development Manager, Germany

End User Needs

11:30 am **Applications of Intelligent Sensing: The Food Cold-Chain**
Mr. Kaz Lawler
Paksense, CTO , USA

Financing in start-up environments

Business Conference 2015 | Tuesday, March 3, 2015 | Room 13b

Financing in start-up environments

11:50 am **Investment Strategy BASF Venture Capital**
Dr. Claus Hackmann
BASF Venture Capital GmbH, Investment Manager, Germany

Business with printed electronics and new applications

12:10 pm **Status and Opportunities for Phosphorescent OLED Lighting**
Dr. Michael Hack
Universal Display Corporation, USA

12:30 pm **Electronics for a flexible world**
Mr. Scott White
PragmatIC Printing Limited, Chief Executive Officer, UK

End User Needs

02:00 pm **The Innovation and challenge of wearable textile applications**
Mr. Yangping Shih
Taiwan Textile Research Institute (TTRI), Deputy Director, Department of Products, Taiwan

New Applications

02:20 pm **IMEC Services for Plastic Electronics**
Dr. Alexander Mityashin
Imec, Project manager, Belgium

02:40 pm **Low Cost Printed Smart Window Films**
Dr. Damoder Reddy
Argil, Inc., CEO, USA

03:00 pm **RICOH's view on Printed Electronics, business update and new applications**
Mr. Ikue Kawashima
RICOH COMPANY,LTD., Executive Specialist, Japan

Business Conference 2015 | Tuesday, March 3, 2015 | Room 13b

Market and Industry Forecasts

04:00 pm **Flexible electronics and the Internet of Things: opportunities and developments in automotive**
Mr. Dan Rogers
Smithers, Head of Digital Publishing, UK

04:20 pm **Unique aspects of the Brazilian solar market driving domestic scale-up of OPV**
Mr. Tiago Alves
?Managing Partner at FIR Capital & CEO at CSEM Brasil, Brazil

04:40 pm **Learning from the failures of the past to develop a strategy for future success in printed, flexible, and organic electronics**
Ph.d. Jonathan Melnick
Lux Research Inc., Senior Analyst, USA

Plenary Session 2015 | Wednesday, March 4, 2015 | Room 14b

Plenary Session

09:15 am **Present and Future of Printed Electronics Technology**
Dr. Soon Kook Hong
LG Electronics, Vice President, Korea, South

09:40 am **Opportunities through Sensors in Home Appliances**
Mr. Markus Köhler
BSH Bosch und Siemens Hausgeräte GmbH, Leiter die Abteilung Technology Management, Corporate Innovation , Germany

10:05 am **Perovskites – Old Material, Bright New Future**
Dr. David Fyfe
Oxford PV, Chairman of the Board, UK

Technical Conference 2015 | Wednesday, March 4, 2015

Flexible displays: Latest advancements on TFT backplanes, flexible substrates and future outlook of the field | Room 13a

11:30 am **Toward Flexible Future of Display**
Dr. Hongjye Hong
AUO, Vice President, Taiwan

11:50 am **Materials for Flexible Thin Film Transistor Displays and Printed Electronics Applications**
Dr. Tomas Backlund
Merck Chemicals, R&D Manager, UK

12:10 pm **Advanced oxide TFTs for high speed flexible circuit applications**
Dr. Brian Cobb
Holst Centre/TNO, Netherlands

12:30 pm **Flexible Glass Substrates for Printed Electronic Applications**
Dr. Sean Garner
Corning Incorporated, USA

Recent achievements on stretchable and wearable electronics applications | Room 13b

11:30 am **Stretchable Organic Materials and Devices**
Prof. Zhenan Bao
Stanford University Department of Chemical Engineering, Professor, UK

11:50 am **From smart tags to wearable electronics**
Mr. Paul Heremans
IMEC, Belgium

12:10 pm **Flexible and stretchable electronics, enabled by the use of flexible, elastic and thermoplastic polymer substrate carriers**
Prof. Jan Vanfleteren
Gent University, Coordinator TERASEL project , Belgium

Technical Conference 2015 | Wednesday, March 4, 2015

Newest materials and manufacturing methods in touch applications | Room 13a

02:00 pm **Integration of touch controls and backlighting into injection-moulded parts**
Mr. Philipp Weissel
plastic electronic GmbH, CEO, Austria

02:20 pm **LOCA coating by High Presision Slot Die**
Mr. Naoki Rikita
MMC RYOTEC CORPORATION, Technical Director, Japan

02:40 pm **Transparent conductive metal mesh films from roll-to-roll production for touch applications**
Mr. Johannes Schad
PolyIC GmbH & Co. KG, Product Manager, Germany

03:00 pm **Clevios High-Conductive Polymer in Touch Panel Sensors**
Dr. Andreas Elschner
Heraeus Precious Metals GmbH & Co. KG, Vice President Technology, Germany

Collaboration research and innovation projects: Latest developments on printed organic circuits and sensors and their low cost manufacturing | Room 13b

02:00 pm **Organic Semiconducting Crystals for novel direct X-Ray detectors (i-FLEXIS project)**
Prof. Beatrice Fraboni
Bologna University, Coordinator i-Flexis, Italy

02:20 pm **Achievement in COSMIC FP7 project: Complementary Organic Semiconductor and Metal Integrated Circuits**
Mr. Micaël Charbonneau
CEA-LITEN/ PICTIC, Printed Electronic Technical Leader, France

02:40 pm **Advantages of a Life Cycle Impact Assessment at an early stage of development of Printed Flexible Organic Photovoltaic**
Mr. Dirk Hengevoss
Fachhochschule Nordwestschweiz FHNW, Research associate, Switzerland

Technical Conference 2015 | Wednesday, March 4, 2015

Upscaling production and 3D printing: Additive and digital manufacturing methods | Room 13b

04:00 pm **Additive Manufacturing at Bosch Automotive Electronics – from Sensors to ECUs**
Mr. Martin Hager
Robert Bosch GmbH, Chief Expert Mechanical Design, Automotive Electronics, Germany
Dr. Andreas Schaller
Robert Bosch GmbH, Senior Expert, Germany

04:20 pm **Digital Manufacturing and 3D Printing at NTUST and in Taiwan**
Prof. Su Wei-nien
National Taiwan University of Science and Technology NTUST, Taiwan

04:40 pm **New gold and silver pastes on glass in combination with Infrared drying and sintering for Printed Electronics**
Mr. Jürgen Weber
Heraeus Noblelight GmbH, Head of R&D Infrared, Germany

05:00 pm **Virtual commissioning of a R2R machine for OLED production**
Mr. Joerg Giebler
Bosch Rexroth AG, Germany

05:20 pm **Micrometer-scale 3D Printing with Aerosol Jet**
Dr. Mike Renn
Optomec, Chief Technical Officer, USA

Encapsulation methods for flexible electronics | Room 13a

04:00 pm **Engineering Synergy: Hybrid Materials Strategies for Encapsulation**
Mr. Jeff Urban
Lawrence Berkeley National Laboratory, USA

04:20 pm **Flexible Encapsulation Technologies for OLED Application**
Mr. Glory Chen
ITRI - Display Technology Center, Taiwan

04:40 pm **THIN-FILM ULTRA-BARRIERS FOR OLED DEVICES AND PHOTOVOLTAICS: OVERCOMING THE FINAL HURDLE FOR FLEXIBLE ELECTRONICS APPLICATIONS**
Prof. Dr. Pim Groen
Holst Centre, Program Manager, Netherlands

Scientific Conference 2015 | Wednesday, March 4, 2015

Devices I: OLED | Room 14a

11:30 am **R2R processed flexible OLEDs for lighting**
Dr. Takashi Minakata
CEREBA, GL, Japan

11:50 am **Development of OLED-Microdisplay with µ-Structured R,G,B Subpixels**
Dr. Olaf R. Hild
Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Head of Department, Germany

12:10 pm **Fully solution processed Tandem OLEDs for White-Light Emission**
Mr. Stefan Höfle
KIT, Germany

Printed Electrodes I: Inorganic Conductors, Materials and Applications | Room 14c

11:30 am **Self reducible conductive inkjet ink based on copper complex**
Mr. Yousef Farraj
The Hebrew University of Jerusalem, Ph.D. student, Israel

11:50 am **Non-contact printing of silver nanowires for stretchable/ transparent electrodes**
Dr. Teppei Araki
Osaka Univ., Japan

12:10 pm **Screen-printed NFC antennas using silver nano-ink onto paper**
Mr. Victor Thenot
Arjowiggins Creative Papers, Research Engineer, France

12:30 pm **Electrical Connection of Printed Silver Tracks by Soldering and Conductive Adhesive**
Mr. Bernhard Polzinger
HSG-IMAT, Germany

Scientific Conference 2015 | Wednesday, March 4, 2015

Devices II: OLED and OFET | Room 14a

02:00 pm **Large area OLED-stack characterisation by Hyperspectral Imaging**

Mr. Florian Gruber
Fraunhofer IWS, Germany

02:20 pm **All-evaporated OTFTs Engineered for Roll-to-Roll Deposition**
Prof. Hazel Assender
University of Oxford, Associate Professor, UK

02:40 pm **Dichlorinated naphthalene diimide: An ambient stable high performance n-type organic semiconductor easily processed from solution as well as by sublimation in vacuum or even in air**
Dr. Matthias Stolte
Universität Würzburg, Germany

03:00 pm **Ambient-atmosphere, inkjet-based manufacturing of Organic Light-Emitting Electrochemical Cells and Organic Photodiodes for Lab-on-a-Chip Applications**
Mr. Falk Kemper
Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Germany

Printed Electrodes II: Inorganic Conductors, Printing and Sintering | Room 14c

02:00 pm **Printing of Self-Reducing Copper Precursor Yielding 50% Bulk Conductivity on 2D and 3D Objects**
Mr. Yitzchak Rosen
Hebrew University of Jerusalem, Israel

02:20 pm **Inkjet-printing of conductive electrodes on flexible textile fabrics for wearable applications**
Mr. Kalyan Yoti Mitra
Technische Universitaet Chemnitz, Germany

02:40 pm **High-frequency flash photonic sintering of inkjet-printed silver ink on plastic substrate**
Mr. Olivier Baudino
EMSE, France

03:00 pm **Adjustable nanowire anisotropy of slot die coated anode layers and its influence to OLED performance**
Ms. Susan Mühl
Fraunhofer FEP, PhD student, Germany

Scientific Conference 2015 | Wednesday, March 4, 2015

Devices III: OPV | Room 14a

04:00 pm **Perovskite based PV for mechanically stacked solar cells**
Dr. David Cheyns
imec, Principal scientist, Belgium

04:20 pm **Printed semitransparent OPV modules: Materials, large-area processing and system integration**
Mr. Florian Machui
ZAE Bayern, Germany

04:40 pm **New Polymeric Layers for Stabilization of Organic Solar Cells**
Ms. Anna Isakova
Aston University, Marie Curie ITN Establis fellow, UK

05:00 pm **Diketo-pyrrolo-pyrroles: prospective materials for organic photonics**
Prof. Martin Vala
Brno University of Technology, researcher, Czech Republic

Printed Electrodes III: Transparent Electrodes | Room 14c

04:00 pm **Ultra-transparent electrodes with high conductivity and low haze based on metal nanowires and carbon nanotubes**
Mr. Thomas Ackermann
GSaME, University of Stuttgart in cooperation with Fraunhofer IPA, Germany

04:20 pm **New conductive inkjet ink for transparent and conductive layers**
Ms. Fanny Hoeng
Poly-Ink, Research Engineer / PhD student, France

04:40 pm **Comparison of thermal, infrared and photonic sintering of screen printed metal-organic decomposition silver layers**
Ms. Monique Helmert
Technische Universität Chemnitz, Germany

05:00 pm **Formulation and printing of graphene based materials for transparent electrodes and thermoelectric generators**
Dr. Edit Pal
Fraunhofer IFAM, Germany

Technical Conference Poster Session 2015 | Wednesday, March 4, 2015 | ICM Foyer

Smart systems: Hybrid manufacturing methods for sensing applications (06:00 pm — 08:00 pm)

P 1.1 **Printed Capacitive Sensors: from FEM simulation to integration in composite materials**
Mr. Miguel Ribeiro
CeNTI, Team Leader, Portugal

P 1.2 **Development of interactive automotive interiors with integrated printed electronic solutions**
Mr. João Gomes
CeNTI, Researcher, Portugal

Upscaling production and 3D printing: Additive and digital manufacturing methods (06:00 pm — 08:00 pm)

P 3.1 **Dual-Stage Profile for Improved Thermal Management in Photonic Sintering**
Dr. Saad Ahmed
XENON Corporation, Director of Engineering, USA

P 3.2 **Xenon Flash Processing of Novel Low-cost Conductive Layers**
Mr. Martin Brown
Heraeus Noblelight Ltd., Cambridge, UK, Applications Manager, UK

P 3.3 **THE scalable process**
Mr. Harald Döll
TSE Troller AG, Switzerland

P 3.4 **Contactless web cleaning based on high air speed**
Mr. Peter Overschie
IBS Precision Engineering, Sr. Mechanical Engineer, Netherlands

P 3.5 **High-end automation for ultra thin layer coating processes**
Mr. Jan van Gerwen
Bosch Rexroth AG, Business Development Manager, Netherlands

P 3.6 **Low cost, Flexible, 3D Printed Super-capacitor**
Mr. Maziar Ahmadi Zeidabadi
Leitat Technological center, Junior researcher, Spain

Energy: Current status of organic and perovskite photovoltaics (06:00 pm — 08:00 pm)

P 5.2 **Fullerene-free organic photovoltaic module demonstrators for building facade and window integration**
Dr. Robert Gehlhaar
imec, Belgium

P 5.3 **Silver Nanowires: The Ultimate Transparent Electrode for OPV**
Dr. Rahul Gupta
Cambrios Technologies, Senior Director Business Development, USA

P 5.4 **Printed electronics in the kitchen**
Mr. Tommi Rintala
Delektre Ltd., CTO, Finland

Recent progress on OLED lighting applications and emitter materials (06:00 pm — 08:00 pm)

P 6.1 **ITO free top emission printed EL Devices using a transparent conductive laminate**
Dr. Eifion Jewell
Swansea University, Senior Technology Transfer Fellow, UK

P 6.2 **Electroluminescent Textiles in Architecture**
Ms. Evelyn Lempa
Niederrhein University, Scientific researcher, Germany

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Recent progress on OLED lighting applications and emitter materials (06:00 pm — 08:00 pm)

P 6.3 **Blue fluorescence from ?-NPD for a deeper blue spectral content in simplified hybrid fluorescent-phosphorescent OLEDs**
Dr. Maria Grazia Maglione
ENEA, Researcher, Italy

Latest developments of organic and printable materials (06:00 pm — 08:00 pm)

P 7.1 **Possibility of Stealthaircraft Design using Polypyrrole**
Mr. Debajyoti Biswas
Indian Institute of Technology Madras, PhD student, India

P 7.2 **Transparent electric conductors based on metal micro- and nanostructures**
Dr. Tobias Kraus
INM ? Leibniz Institute for New Materials, Germany

P 7.3 **Virtual Screening for Organic Electronics**
Dr. Jacob Gavartin
Schrödinger Inc, Materials Science Lead, UK

P 7.4 **Printable P- and N-Channel TFTs for Flexible Electronics Applications**
Dr. Chun Huang
Polyera Corporation, Principal Scientist, USA

P 7.5 **Scalable Nano Silver Conductors for Industrial Screen Printed and Inkjet Applications**
Dr. Dave Hui
DuPont (UK), Development Scientist, UK

P 7.6 **The importance of the choice of dispersion method for ink and paste production**
Mr. Ulf Koepke
EXAKT Advanced Technologies GmbH, R&D Manager, Germany

P 7.7 **Innovative materials for printed electronics**
Mr. Yasuaki Koseki
TOYOBO CO., LTD., Senior Coordinator, Japan

P 7.8 **Hybrid Approaches in Touch Panels, OLED and OPV**
Dr. Wilfried Lövenich
Heraeus Precious Metals GmbH &CoKG, Head of Basic Development ELD, Germany

P 7.9 **Printable hybrid materials for charge transport and light-management layers in solar cells and lighting devices**
Dr. Norman Lüchinger
Nanograde AG, Switzerland

P 7.10 **Novel NONcrystallizable™ Organic Semiconductors and Emitters for OLED and Other Organic Electronics Applications**
Mr. Michel (mike) Molaire
Molecular Glasses, CEO/Founder, USA

P 7.11 **Processing transparent electrodes based on hybrid nanomaterials**
Mr. Serhat Sahakalkan
Fraunhofer IPA, Germany

P 7.12 **Novel Transparent Electrodes on Flexible Substrates as Alternative to ITO**
Dr. Wolfgang Siefert
ROWO Coating GmbH, General Manager, Germany

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Latest developments of organic and printable materials (06:00 pm — 08:00 pm)

P 7.13 **Electrode materials and barrier foils for organic electronics – an overview on the R&D activities within the EU funded project TREASORES**
Dr. Roland Steim
EMPA, Switzerland

Encapsulation methods for flexible electronics (06:00 pm — 08:00 pm)

P 8.1 **HYBRID-R2R-SOLUTION**
Mr. Uwe Beier
Adenso GmbH, Germany

P 8.2 **ALD-film: flexibility versus barrier function**
Ms. Claudia Keibler
Fraunhofer FEP, Dipl.-Ing., EAE, Germany

P 8.3 **Production of Low Cost Encapsulation Materials on Weatherable Substrates**
Dr. Esra Kucukpinar
Fraunhofer Institute for Process Engineering and Packaging, Scientist, Germany

P 8.4 **Thin-film encapsulation by fast large-area plasma-enhanced ALD**
Dr. Mikko Söderlund
Beneq, Head of Thin Film Encapsulation Product Group, Finland

P 8.5 **High Performance Barrier Films Deposited by Low Temperature ICP-PECVD for Organic Electronics Encapsulation**
Prof. Zheng Cui
Suzhou Institute of Nanotech, Chinese Academy of Sciences, Director, China

Newest materials and manufacturing methods in touch applications (06:00 pm — 08:00 pm)

P 9.1 **Continuous monitoring of manufacturing processes dedicated to PE (sensors & displays)**
Mr. Michel Popovic
INCORE SYSTEMES, Managing Director â€“ PhD in Engineering in Electronics, France

Recent achievements on stretchable and wearable electronics applications (06:00 pm — 08:00 pm)

P 10.1 **Textile based stretchable electronics**
Dr. Paul Lacharmoise
Cetemmsa Technological Center, R&D Manager, Spain

Collaboration research and innovation projects: Latest developments on printed organic circuits and sensors and their low cost manufacturing (06:00 pm — 08:00 pm)

P 11.1 **ArtESun: European collaboration to develop highly efficient organic solar cells**
Dr. Tom Aernouts
imec, R&D Manager, Belgium

P 11.2 **Hybrid Drying and Curing Equipment for Multi-Layer Flexible Electronics**
Dr. Kai Bär
adphos Digital Printing GmbH, Managing Director/President, Germany

Scientific Conference Poster Session 2015 | Wednesday, March 4, 2015 | ICM Foyer

Materials: includes organic, inorganic, carbon and nano materials, semiconductors, conductors, dielectrics, substrates (06:00 pm — 08:00 pm)

P1.1 **Carrier mobility and disorder in organic semiconductors**
Dr. Jacob Gavartin
Schrödinger Inc, UK

P1.2 **New Hematite Particles in a "Nano-medusa" Morphology**
Dr. Andreja Jelen
J. Stefan Institute, Slovenia

P1.3 **Hierarchical graphene trees as anode materials for lithium ion batteries with high rate capability**
Dr. Seung Yol Jeong
Korea Electrotechnology Research Institute, Korea, South

P1.4 **PHOTOCHROMIC MATERIALS FOR PRINTING ELECTRONICS**
Prof. Dr. Alexander Ponyaev
Saint-Petersburg State Institute of Technology (Technical University), PHOTOCHROMIC MATERIALS FOR PRINTING ELECTRONICS, Russia

P1.5 **3D Printable Graphene/Polylactic-acid nanocomposite**
Mr. Chakrit Sriprachuabwong
National Electronics and Computer Technology Center (NECTEC), National Science and Technology Development Agency (NSTDA), Assistant researcher, Thailand

P1.6 **Material development for printed polymer thermoelectric**
Mr. Lukas Stepien
Fraunhofer IWS, Germany

Devices: includes transistors, diodes, sensors, circuitry, power sources, backplanes, photovoltaics, lighting, memory, displays, smart textiles and further applications (06:00 pm — 08:00 pm)

P2.1 **Metal-oxide TFTs with solution processed high-k dielectric enabling high-current at low operation voltage**
Dr. Ari Alastalo
VTT, Principal Scientist, Finland

P2.2 **Flexible OTFTs manufactured by a high speed all-evaporated process in a roll-to-roll vacuum webcoating facility**
Prof. Hazel Assender
University of Oxford, Associate Professor, UK

P2.3 **Fabrication and performance of all-inkjet-printed organic thin-film transistors with UV curable dielectric for textile applications.**
Dr. Hélder Castro
Minho University, Portugal

P2.4 **All printed piezoresistive sensor based on poly(styrene-butadiene-styrene) ink and it implementation into a smart glove prototype.**
Dr. Vitor Correia
Minho University, Portugal

P2.5 **Textile sensors for the detection of fabric destruction**
Mr. Carsten Graßmann
Niederrhein University of Applied Sciences, Germany

P2.6 **Thermoelectric characterization of polymer based printed thermoelectric structures on flexible substrates**
Ms. Kristina Grunewald
Technische Hochschule Nürnberg - Georg Simon Ohm, Scientific Assistant, Germany

Scientific Conference Poster Session 2015 | Wednesday, March 4, 2015 | ICM Foyer

Devices: includes transistors, diodes, sensors, circuitry, power sources, backplanes, photovoltaics, lighting, memory, displays, smart textiles and further applications (06:00 pm — 08:00 pm)

P2.7 **R2R gravure printed carbon-nanotube-based thin film transistor backplane based tilting angle and bending curvature detecting sensor**
Mr. Sun Junfeng
suncheon national university, Korea, South

P2.8 **Screen printed Screen Printed Graphene Electrode for the Detection of DNA of Aspergillus flavas Using H33258 Indicator Using Cyclic Voltammetry**
Ms. Chanpen Karuwan
National Electronics and Computer Technology Center (NECTEC), Thailand
National Science and Technology Development Agency (NSTDA), Thailand

P2.9 **Improvement of the function of OTFT based on TIPS-pentacene through roll to roll fabrication and with proper treatments**
Mr. Jae-Min Kim
Konkuk university, Korea, South

P2.10 **Fabrication of microstrip line using heated gas-beam sintering and silver inkjet printing**
Prof. Jung-Mu Kim
Chonbuk National University, Korea, South

P2.11 **Development of Gd2O3:Eu3+-based scintillator inks for screen printed x-ray detectors**
Prof. Dr. Senentxu Lanceros-Méndez
University of Minho, Portugal

P2.12 **High-density RDL and TSV fabrication using super inkjet technology for MEMS device**
Prof. Dr. Matti Mäntysalo
Tampere University of Technology, Adj. Prof., Finland

P2.13 **Nanoscale surface-relief diffraction gratings for light-management in OPVs**
Mr. Jan Mayer
CSEM / University of Basel, PhD Student, Switzerland

P2.14 **Passivation Effect on Stability of Printed SWNT based Thin Film Transistor**
Ms. Hyejin Park
Sunchon National University, student, Korea, South

P2.15 **Inkjet printed all-organic antenna for passive UHF RFID application**
Mr. Pedro Henrique Pereira Rebello
Flextronics Institute of Technology, Brazil

P2.16 **Electrical in-situ characterisation of oTFTs**
Mr. Bernd Striedinger
Joanneum Research, Austria

P2.17 **CMOS Inverters Based on Printed Carbon Nanotube Thin Film Transistors**
Prof. Zheng Cui
Suzhou Institute of Nanotech, Chinese Academy of Sciences, Director, UK

P2.18 **Low temperature printed Indium Gallium Zinc Oxide thin film transistors**
Prof. Zheng Cui
Suzhou Institute of Nanotech, Chinese Academy of Sciences, Director, China

Printing, Patterning Technologies and Appropriate Equipment: in-cludes traditional printing processes (gravure, flexo, offset, screen, etc.), ink-jet, laser patterning, large-area patterning techniques, nano patterning technologies, Micro and dip-pen, coa (06:00 pm — 08:00 pm)

P3.1 **Photonic flash technologies for the high resolution patterning of functional optoelectronic materials**
Dr. Gari Arutinov
Holst Centre, Netherlands

Scientific Conference Poster Session 2015 | Wednesday, March 4, 2015 | ICM Foyer

Printing, Patterning Technologies and Appropriate Equipment: in-cludes traditional printing processes (gravure, flexo, offset, screen, etc.), ink-jet, laser patterning, large-area patterning techniques, nano patterning technologies, Micro and dip-pen, coa (06:00 pm — 08:00 pm)

P3.2 **Optimization of laser high speed thin film patterning and transfer (LIFT) of Ag nanoparticle inks for sensor fabrication on flexible substrates**
Dr. Emeric Biver
Oxford Lasers, Marie Curie Post Doctoral Fellow, UK

P3.3 **Flexographic Printing Technology for Silver Nanowire**
Prof. Tadahiro Furukawa
Yamagata University, Japan

P3.4 **Behavior of charged particle by different substrate in ElectroHydroDynamic (EHD) inkjet printing**
Mr. Sirazul Haque
SungKyunKwan University, Research Assistant (RA), Korea, South

P3.5 **Ultrafine (<7 micrometers) Conductive Silver Patterns by Ink-jet Printing and Photonic Sintering**
Dr. Ching-Mao Huang
Industrial Techology Research Institute, Researcher, Taiwan

P3.6 **Micro-machined Silicon Nozzles Fabrication for Nozzle Printing to Make OLED displays**
Dr. Sangho Lee
Korea Institute of Industrial Technology, Korea, South

P3.7 **Improvement of register error estimation in roll-to-roll printing equipment by compensation of unrecognized data**
Prof. Dr. Chung Hwan Kim
Chungnam National University, Korea, South

P3.8 **Development of Roll-to-Roll Reverse Offset Printing System for Multi-layer Overlay Alignment**
Dr. Sin Kwon
Korea Institute of Machinery & Materials (KIMM), Senior Researcher, Korea, South

P3.9 **Continuous-jet coating process using micromachined silicon nozzles for OLED device manufacturing process**
Dr. Sangho Lee
Korea Institute of Industrial Technology, Korea, South

P3.10 **Spontaneous Defect-Free Micropattern: Unidirectional Liquid-Spreading**
Dr. Saifullah Lone
King Abdullah University of Science & Technology (KAUST), Post Doctoral Fellow, Saudi Arabia

P3.11 **SWAP-SLOT® System : Flexible Slot Coating**
Mr. Pierre-André Rossier
UNAV Coating Technologies, CEO CTO, Switzerland

P3.12 **Direct Write OLEDs via Aerosol Jet Printing with 140ppi RGB Pixel Density**
Mr. Jeffrey G. Tait
IMEC, Belgium

P3.13 **Flexible Metal-mesh Transparent Conductive Substrate as ITO replacement for OLED**
Prof. Zheng Cui
Suzhou Institute of Nanotech, Chinese Academy of Sciences, Director, China

P3.14 **Inkjet Printed Silver Nanowire Network as Transparent Top Electrode for Organic Solar Cell Devices**
Prof. Zheng Cui
Suzhou Institute of Nanotech, Chinese Academy of Sciences, Director, China

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P3.15 **Roll-to-roll printing and laser scribing process technology for the low-cost fabrication of flexible Organic Electronics**
Prof. Stergios Logothetidis
Aristotle University of Thessaloniki, Head of Organic Electronics Group, Greece

P3.16 **Soft-lithographic printing of transparent platinum electrodes for OLED application**
Mr. Florian Michael Wisser
Technische Universität Dresden, Dipl.-Chem., IngÃ©nieur ECPM, Germany

P3.17 **GreeNanoFilms towards innovative bio-electronic materials and devices**
Dr. Noemie Ballot
CNRS, France

Quality Control in Production Lines (06:00 pm — 08:00 pm)

P5.1 **Measurement and evaluation of printability of printed patterns in printed electronics by measurement of geometric properties**
Prof. Dr. Chung Hwan Kim
Chungnam National University, Korea, South

P5.2 **In-line Spectroscopic Ellipsometry and Raman Spectroscopy investigation of morphology and bonding structure of photoactive layers for organic photovoltaics**
Dr. Argiris Laskarakis
Aristotle University of Thessaloniki, Head of Organic Electronics Group, Greece

Start-up Forum 2015 | Wednesday, March 4, 2015 | LOPEC Forum

Seed Financing

11:00 am **Effective Micro-Current Device for Cosmetic and Medical Applications**
Mr. Abdel Yakoub
Feeligreen _ dermo-innovation, R&D manager, France

11:10 am **Ink-Jet Printing at the Nanoscale**
Dr. Patrick Galliker
Scrona AG, Switzerland

11:20 am **Sensor Films Inc.: Putting You in Touch**
Dr. Brian Johnston
Sensor Films Inc., CEO, USA

11:30 am **SIOD - Light and Animation in Magazines and on Packaging**
Mr. Marcin Ratajczak
SIOD, CEO, Germany

11:40 am **Metal electrodes for printed electronics**
Dr. Natalia Zamoshchik
OrelTech, Israel

B-Round

11:50 am **Diamonds are forever**
Mr. Tommi Rintala
Delektre Ltd., CTO, Finland

12:00 pm **3D-Copper Ink**
Mr. Robert Even
ClearJet, Israel

12:10 pm **Beautiful light on the way**
Mr. Nikolai Koehler
fdesign, CEO, Germany

Start-up Forum 2015 | Wednesday, March 4, 2015 | LOPEC Forum

B-Round

12:20 pm **Next Generation Building-Integrated PV**
Dr. Axel Neisser
crystalsol GmbH, Austria

12:30 pm **Electrochemical Deposition of Oxides: Equipment and Process for Applications in Photovoltaics, Touch Screens, Electronics and Energy Storage**
Mr. George Rubin
Clear Metals Inc., Executive Chairman, Canada

Plenary Session 2015 | Thursday, March 5, 2015 | Room 14b

Plenary Session

09:00 am **OLED in Automotive Lighting: Opportunities & Challenges**
Mr. Marc Lünnemann
OSRAM OLED GmbH, CEO, Germany

09:25 am **Printed Electronics for Adherence: Smart Blisters in the Real World**
Mr. Michael Petersen
Information Mediary Corporation (IMC), COO, Canada

09:50 am **Printed Electronics for Consumer Goods**
Dr. Tom Taylor
Centre for Process Innovation Limited (CPI), Director of Future Business - National Printable Electronics Centre, UK

10:15 am **Wearable and beyond wearable electronics**
Prof. Takao Someya
University of Tokyo, Japan

Technical Conference 2015 | Thursday, March 5, 2015

Biosensing on health and wellbeing applications | Room 13a

11:30 am **The Electrochemical Detection of Prostate Cancer Markers using Immuno-Magnetic Sensors**
Dr. Guido Drago
Gwent Group, Director, UK

11:50 am **Effective Micro-Current Device for Cosmetic and Medical Applications**
Mr. Abdel Yakoub
Feeligreen _ dermo-innovation, R&D manager, France

12:10 pm **The Changing Biosensor Market: a Manufacturer's Perspective**
Mr. Gordon Smith
GSI Technologies, CTO, USA

Latest developments of organic and printable materials | Room 13b

11:30 am **Room-temperature Printed Electronics: Annealing-Free, low-cost Fabrication of Flexible Electronics Products**
Dr. Takeo Minari
International Center for Materials Nanoarchitectonics, Independent Scientist, Japan

11:50 am **Crystal design for the development of new organic semiconductors.**
Prof. John Anthony
University of Kentucky, Gill Professor of Chemistry, USA

12:10 pm **Flexible Aluminium-Nanoceramic Substrate for LED applications**
Dr. Pavel Shashkov
Cambridge Nanotherm Ltd, CTO, UK

Technical Conference 2015 | Thursday, March 5, 2015

Smart systems: Hybrid manufacturing methods for sensing applications | Room 13a

02:00 pm **Flexible sensor technologies for new device platforms**
Dr. Vuokko Lantz
Nokia Technologies
Dr. Henrik Sandberg
VTT

02:20 pm **R2R and Sheet based manufacturing of printed electronics – the hybrid approach**
Dr. Göran Gustavsson
ACREO, Department Manager, Sweden

02:40 pm **Organic photovoltaic modules for energy autonomous smart systems**
Dr. Michael Niggemann
Eight19, CTO, UK

04:00 pm **A direct printed passive RF sensor for content aware drug bottles**
Prof. Dr. Marco Mazza
HEFR, iPrint, Professor, Switzerland

04:20 pm **Development of interactive automotive interiors with integrated printed electronic solutions**
Mr. João Gomes
CeNTI, Researcher, Portugal

Recent progress on OLED lighting applications and emitter materials | Room 13b

02:00 pm **Recent progress on high performance polymer OLED materials and devices for lighting applications**
Dr. Natasha Conway
Cambridge Display Technology Ltd, Programme Manager, Lighting, UK

02:20 pm **Latest developments in OLEDs for lighting**
Dr. Sören Hartmann
Philips, manager OLED process development, Netherlands

02:40 pm **Flexible OLEDs for lighting applications with improved light extraction efficiency**
Dr. Stephan Harkema
Holst Centre TNO, Sr Scientist, Netherlands

03:00 pm **Singlet Harvesting technology in OLEDs**
Dr. Charlotte Fléchon
CYNORA , Germany

Technical Conference 2015 | Thursday, March 5, 2015

Energy: Current status of organic and perovskite photovoltaics | Room 13b

04:00 pm **Critical Parameters Supporting the Case for Perovskite-based Solar Absorbers**
Dr. Chris Case
Oxford PV, CTO, UK

04:20 pm **Challenges and future applications for Organic PhotoVoltaics**
Mr. Ron Andriessen
Holst Solliance, Netherlands

04:40 pm **Industrialization of Organic Photovoltaic (OPV) in Europe – What's new ?**
Mr. François Barreau
Armor Sustainable Energies (ASE), Marketing Manager, France

Scientific Conference 2015 | Thursday, March 5, 2015 | Room 14a

Devices IV: OPV and Photomemory

11:30 am **High Performance Diketopyrrolopyrrole Based Organic Photovoltaics via Concurrently Pumped Ultrasonic Spray Coating**
Mr. Jeffrey G. Tait
IMEC, Belgium

11:50 am **Inkjet printing of organic photovoltaics**
Mr. Philipp Maisch
ZAE Bayern (Regenerative Energies), Germany

12:10 pm **Dispenser printed thermoelectric generators**
Mr. Aljoscha Roch
Fraunhofer IWS, Germany

12:30 pm **Flash like Organic Photomemory**
Mr. Mincheol Kim
KAIST, Korea, South

High Resolution Patterning Processes

11:30 am **A novel methodology utilizing subtractive and additive laser processing for photovoltaic module fabrication**
Dr. Rajesh Mandamparambil
TNO, Senior Scientist, Netherlands

11:50 am **Large Area Residual-Free Roll-to-Roll Nanoimprint-Lithography**
Dr. Herbert Gold
Joanneum Research, Austria

12:10 pm **Design kit toolset development for gravure printed organic thin-film transistors**
Dr. Frédéric Zanella
CSEM, R&D Engineer, Switzerland

12:30 pm **Reliability of flexible electronics: an overview of mechanical, thermal, and electrical failure mechanisms**
Dr. Oleksandr Glushko
Erich Schmid Institute for Materials Science, Austria

Devices V: Encapsulation and Thermoelectric Generator

02:00 pm **Ionic Liquids as Additives for Printable Electronics**
Dr. Thomas Schubert
Iolitec GmbH, Germany

02:20 pm **How lag time of permeation through flexible encapsulation materials is affected by their layer structure**
Mr. Oliver Miesbauer
Fraunhofer-Institut für Verfahrenstechnik und Verpackung IVV, Scientist, Germany

02:40 pm **Decoupling the elements of device degradation: Stability testing in precise environments**
Dr. James Blakesley
National Physical Laboratory, Senior Research Scientist, UK

03:00 pm **Characterization of moisture induced degradation of organic solar cells using non-destructive lock in NIR/IR imaging techniques**
Mr. Jens Adams
ZAE-Bayern, PhD Student, Germany

Printing and Processing

02:00 pm **Optimisation of porous anodic aluminum oxide layer on paper for ammonia detection**
Dr. Mamadou Saliou Balde
Institute of Electronics and Systemes, Sensors research Engineer, France

Scientific Conference 2015 | Thursday, March 5, 2015 | Room 14a

Printing and Processing

02:20 pm **Technology Mapping Tools for Building Optimal Circuits**
Prof. Dr. Jordi Carrabina
Universitat Autonoma de Barcelona, Laboratory Director, Spain

02:40 pm **Rotary screen printing for large scale polymer electronics production**
Dr. Jac Vermeijlen
SPGPrints BV, Sr. Process Development Expert, Netherlands

Devices VI: Sensors

04:00 pm **Inkjet-printed flexible and disposable biochips for in-vitro tumor diagnostics**
Ms. Nada Mzoughi
Technische Universität München, Dipl.-Ing, Germany

04:20 pm **Can Textile Sensors be Printed?**
Ms. Evelyn Lempa
Niederrhein University, Scientific Researcher, Germany

04:40 pm **Pressure Sensor Sheet Utilizing Printed Carbon Nanotube TFTs by On-Demand Fabrication**
Mr. Hideaki Numata
Technology Research Association for Single Wall Carbon Nanotubes (TASC), Japan