

Preliminary Program

**International Symposium on
Flexible Electronics 2010 (ISFE'10)**

April 11-14, 2010

Palma de Mallorca, Spain

Conference Chair

**Professor Rodrigo Picos
Universitat de les Illes Balears (UIB)**

Conference Co-Chairs

**Professor Michael Shur
Center for Broadband Data Transport and
RPI Research Site of "Connection One" NSF/UCRC**

**Professor Benjamin Iniguez
Universitat Rovira I Virgili (URV)**

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Sunday, April 11, 2010

16:00 – 18:00 Conference check-in

18:00 – 19:00 Welcome reception

19:00 Dinner on own

Monday, April 12, 2010

09:00 – 09:15 **Welcoming Remarks and Opening of the Conference**
Rodrigo Picos, Universitat de les Illes Balears (UIB)
Michael Shur, Center for Broadband Data Transport and
RPI Research Site of “Connection One” NSFI/UCRC
Benjamin Iniguez, Universitat Rovira I Virgili (URV)

09:15 – 10:00 **Plenary 1**
New Architectures for the Organic Transistor
Gilles Horowitz, Paris Diderot University, France

10:00 – 10:45 **Plenary 2**
Low-Temperature Amorphous, Nanocrystalline and Polymorphous Silicon
Thin-Film Transistors – Applications for Flexible Electronics
C.A. Dimitriadis, Aristotle University of Thessaloniki, Greece

10:45 – 11:15 Coffee Break

11:20 – 12:40 **Modeling 1**

11:20 – 11:40 A Study on Nanoscale Materials Devices in Organic Electronics
Application and Some Computational Models
Katya Marinova Simeonova, Bulgarian Academy of Sciences, Bulgaria

11:40 – 12:00 Physical Spice Modeling of Organic Field-Effect Transistors
Slobodan Mijalkovic, Silvaco Europe Ltd., UK

12:00 – 12:20 Impact of the Universal Mobility Law on Polycrystalline Organic Device
and Circuit Operation
Munira Raja, University of Liverpool, UK

12:20 – 12:40 Compact Capacitance Model for OTFTs
Alejandra Castro-Carranza, Universitat Rovira I Virgili, Spain

12:45 – 14:30 Lunch

14:30 – 16:10 **Fabrication 1**

14:30 – 14:50 Flip Chip Lamination Approach to Fabricate Top Metal Contacts on
Organic –Based Devices
Mariona Coll, NIST, USA

14:50 – 15:10 Low Voltage Complementary Organic Inverters on Flexible Substrates
Thomas Rothlaender, Joanneum Research Institute, Austria

- 15:10 – 15:30 Self-Aligned Nanoimprinted Organic Transistors on Flexible Substrates
Ursula Palfinger, Joanneum Research Institute, Austria
- 15:30 – 15:50 Methodology and Tools for Inkjet Process Abstraction for the design of Flexible and Organic Electronics
Jordi Mujal, Universitat Autònoma de Barcelona, Spain
- 15:50 – 16:10 A-Si:H TFT Backplanes Fabricated on Flexible Substrates with Improved Overlay Misalignment
Maryam Moradi, IGNIS Innovation Inc., Canada
- 16:10 – 16:40 **Coffee Break**
- 16:40 – 18:00 **Fabrication 2**
- 16:40 – 17:00 Flexible Optoelectronic Device Fabrication
Jacobus W. Swart, Centro de Tecnologia da Informação Renato Archer (CTI), Brazil
- 17:00 – 17:20 Organic Photodiodes for Flexible Multi-Analyte-Sensors
Elke Kraker, Joanneum Research Institute, Austria
- 17:20 – 17:40 Flexible Acceleration Sensors Based on Polymer-Electronic Materials
Dirk Zielke, University of Applied Sciences Bielefeld, Germany
- 17:40 – 18:00 Flexible Organic Field-Effect-Transistors
Jacek Ulanski, Technical University of Lodz, Poland
- 18:00 Dinner on own

Tuesday, April 13, 2010

- 09:00 – 09:45 **Plenary 3**
European Networks of Excellence Flexnet and Polynet – Two NoE in the Area of Flexible Organic and Large Area Electronics to Foster Transfer from Science to Industry within EU
Lars Heinze, VDI/VDE Innovation + Technik GmbH, Germany
- 09:45 – 10:30 **Plenary 4**
Flexible Electronics Related-Projects in the European Union
Francisco Ibanez, European Commission
- 10:30 – 11:00 Coffee Break
- 11:00 – 12:40 **Fabrication 3**
- 11:00 – 11:20 P3HT Nanopillar Arrays on ITO Substrates for Developing P3HT Nanostructured Solar Cells
Luis F. Marsal, University of Rovira I Virgili, Spain
- 11:20 – 11:40 Flexible Vertical ZNO Nanowire Array Solar Cell
JG Lu, University of Southern California, USA
- 11:40 – 12:00 Micromorph Tandem Solar Cells on Clear Plastic Substrates
Ehsanollah Fathi, University of Waterloo, Canada

12:00 – 12:20	Solution Processed OFETs Developed on Flexible Substrates by a New Lithographic Technique Based on Electro-Mechanical Ablation Angel Luis Alvarez, Universidad Rey Juan Carlos, Spain
12:20 – 12:40	Femtogram Controlled Definition of Highly-Ordered Polyaniline Nanoarchitectures Sorin Melinte, Universite Catholique de Louvain, Belgium
12:30 – 14:30	Lunch
14:30 – 15:50	<u>Fabrication 4</u>
14:30 – 14:50	Engineering Approach to Materials and Devices Development Nir Tessler, Technion, Israel
14:50 – 15:10	Organic Thin-Film Transistors with E-Beam Cured Polymeric Gate Dielectrics Gamal Abbas, University of Oxford, UK
15:10 – 15:30	Polythiophene Composites with Plasmonic Gold Nanoparticles: Electrical and Optical Properties Jiri Pflieger, Institute of Macromolecular Chemistry AS CR, Czech Republic
15:30 – 15:50	Fabrication of Complementary Organic Inverters with Different W/L Ratios A. Marsal, Universitat Politecnica Catalunya, Spain
15:50 - 16:10	Coffee Break
16:10 – 17:00	<u>Plenary 5</u> Theoretical Description of Charge Transport in Disordered Organic Materials Sergei Baranovski, Philipps-University Marburg, Germany
17:45 – 19:00	<u>Poster Session</u>
	Accurate Incorporation of the Channel-Length Modulation Effect in the Improved A-SI RPI-TFT Compact V.O. Turin, Orel State Technical University, Russia
	Sacrificial Layer Technology for Fabrication of Acceleration Sensors Andreas Hense, University of Applied Sciences Bielefeld, Germany
	PMMA on F8T2 PTFTS Structures with Photolithography Defined Gold Contacts and Inter-Level Connections Israel Mejia, CINVESTAV-IPN, Mexico
	The Transforming EM Head Coils: From Microscopy to Amplification Rostyslav Sklyar, Ukraine

Electron and Hole Trapping in Organic Semiconductors

Asal Kiazadeh, Universidade do Algarve, Centre of Electronic Optoelectronics and Telecommunications (CEOT), Portugal

New N-functionalized arylene bisimides as semiconductors for air operating, all organic N-channel field effect transistors, fabricated via solution processing

Malgorzata Zagorska, Warsaw University of Technology, Poland

20:00 – 22:00 Conference Dinner

Wednesday, April 14, 2010:

09:00 – 09:45

Plenary 6

Manufacturing and Material Formulation Strategies for Bottom-Gate Polymer Dielectrics in Organic TFTS
Markus Burghart, Fraunhofer IZM-M, Germany

09:45 – 10:30

Plenary 7

Low Stress TFTs on Transparent Plastic
Arokia Nathan, University College London, UK

10:30 – 11:00

Coffee Break

11:00 – 12:40

Modeling 2

11:00 – 11:20

Compact Modeling of Advanced Thin Film Transistors: Issues and Challenges
Michael Shur, Rensselaer Polytechnic Institute, USA

11:20 – 11:40

Towards' a Compact Model for the Injection of Charge into Organic/Polymeric Semiconductors
Juan A. Jimenez Tajada, Universidad de Granada, Spain

11:40 – 12:00

Fabrication and Simulation of Complementary Organic Inverter
Niikos P. Papadopoulos, Aristotle University of Thessaloniki, Greece

12:00 – 12:20

Polymeric Thin Film Transistors: A Review on Fabrication and Modeling
Magali Estrada, Ingenieria Electrica, Mexico

12:20 – 13:00

Final Discussions and Conference Closing

13:00

Lunch and Departure