

**11<sup>th</sup> International Symposium on Flexible Organic Electronics (ISFOE18), 2-5 July 2018, Thessaloniki, Greece**  
**PRELIMINARY PROGRAM**

<b>08:00 -</b>	<b>Registration</b>
<b>09:00-09:30</b>	<b>Welcome and Opening Remarks</b> S. Logothetidis, ISFOE18 Chairman
<b>09:30-11:00</b>	<b>Workshop on OLAE Materials 1 (Room: Crystal Hall)</b> <b>Chair: M. Gioti, Department of Physics, Aristotle University of Thessaloniki, Greece</b>
<b>09:30-10:00</b> <b>KEYNOTE</b>	<b>Energy: Can the Human Race Transit to a “free” energy model?</b> S.R.P. Silva <i>Advanced Technology Institute, University of Surrey, Guildford GU2 7XH, Surrey, UK</i>
<b>10:00-10:30</b> <b>KEYNOTE</b>	<b>Semiconducting polymers and hybrids for OPVs</b> S. Aivali <sup>1</sup> , C. Anastasopoulos <sup>1</sup> , A. K. Andreopoulou <sup>1,2</sup> , J. K. Kallitsis <sup>1,2</sup> <sup>1</sup> <i>Department of Chemistry, University of Patras, Rio 26504, Greece</i> <sup>2</sup> <i>Chemical Engineering Science Foundation of research Technology Hellas FORTH/ICE-HT, Patras 26504, Greece</i>
<b>10:30-10:45</b>	<b>Evolution of structural properties of <math>\pi</math>-conjugated semi-conducting oriented polymers under mechanical load from in-situ GIXRD measurements</b> M.Y. Aliouat <sup>1,2</sup> , S. Escoubas <sup>1</sup> , S. Grigorian <sup>3</sup> , M. C. Benoudia <sup>2</sup> , D. Duché <sup>1</sup> , C. Videlot-Ackermann <sup>4</sup> , J. Ackermann <sup>4</sup> , O. Thomas <sup>1</sup> <sup>1</sup> <i>Aix Marseille Univ, Univ Toulon, CNRS, IM2NP, Campus de St-Jérôme, 13397, Marseille, France</i> , <sup>2</sup> <i>Ecole Nationale Supérieure des Mines et de la Métallurgie, L3M,, W129 Annaba, Algeria</i> <sup>3</sup> <i>Institute of Physics, University of Siegen, Walter-Flex-Strasse 3, D-57068 Siegen, Germany</i> , <sup>4</sup> <i>Aix Marseille Université, CNRS, CINaM UMR 7325, Campus de Luminy, 13288, Marseille, France</i>
<b>10:45-11:00</b>	<b>Low-Cost Organic Micro-Lens Arrays for Solar Cells &amp; LEDs: UV-C patterned PMMA and Capillary Deposited PDMS</b> D. Carbaugh, A. Rohit, T. Holeman, S. Kaya, P. Rajan, J. Wright, W. Jadwisieniczak and F. Rahman <i>School of Elec Eng &amp; Comp Sci, Ohio University, Athens OH USA</i>
<b>11:00-11:30</b>	<b>Coffee Break</b> <b>ISFOE18 Posters 1-Exhibition - Networking</b>
<b>11:30-13:30</b>	<b>Workshop on OLAE Materials 2 (Room: Crystal Hall)</b> <b>Chair: J. Kallitsis, University of Patras, Greece</b>
<b>11:30-12:00</b> <b>KEYNOTE</b>	<b>Printed Hybrid Electronic, Optoelectronic and Photovoltaic Devices</b> E.J.W List-Kratochvil <sup>1</sup> , E. Unger <sup>2</sup> , R. Schlatmann <sup>2</sup> <sup>1</sup> <i>Institut für Physik, Institut für Chemie &amp; IRIS Adlershof, Humboldt-Universität zu Berlin, Berlin, Germany</i> <sup>2</sup> <i>Helmholtz-Zentrum für Materialien und Energie GmbH, HySPRINT Helmholtz Innovation Lab, Berlin, Germany</i>
<b>12:00-12:30</b> <b>INVITED</b>	<b>Multi-scale high-resolution mapping of printed photovoltaics: the impact on performance from nanoscale properties to manufacturing induced defects</b> F. A. Castro, S. Wood, A. Zoladek-Lemanczyk, N. Kumar, F. Bausi, G. Koutsourakis, J.C. Blakesley <i>National Physical Laboratory, Hampton Road, Teddington, TW11 0LW, United Kingdom</i>
<b>12:30-12:45</b>	<b>Solution processable white-light OLEDs based on novel copolymers with blue, yellow and red chromophores</b> M. Gioti <sup>1</sup> , K. Stavrou <sup>1</sup> , D. Kokkinos <sup>2</sup> , K. Simitzi <sup>3</sup> , A. K. Andreopoulou <sup>3</sup> , J. K. Kallitsis <sup>3</sup> , S. Logothetidis <sup>1</sup> <sup>1</sup> <i>Nanotechnology Lab LTFN, Dept Physics, Aristotle University of Thessaloniki, Greece</i> , <sup>2</sup> <i>Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, GR-57001 Thessaloniki, Greece</i> , <sup>3</sup> <i>Department of Chemistry, University of Patras, GR-26504 Patras, Greece</i>
<b>12:45-13:00</b>	<b>Advanced rheometric techniques to improve formulation of particle suspensions</b> J. Claypole, A. Claypole, T. Claypole <i>Welsh Centre for Printing and Coating, Swansea University, Swansea, SA1 8EN, Wales, UK</i>
<b>13:00-13:15</b>	<b>Conductive Bridge Random Access Memory devices with Ecofriendly Solid Polymer Electrolyte for flexible electronics applications</b> P. Mahato <sup>1</sup> , E. Puyoo <sup>1</sup> , S. Pruvost <sup>2</sup> , D. Deleruyelle <sup>1</sup> <sup>1</sup> <i>Institut des Nanotechnologies de Lyon, UMR CNRS 5270, Institut National des Sciences Appliquées Lyon, France</i> <sup>2</sup> <i>Univ Lyon, INSA Lyon, UMR CNRS 5223, IMP Ingénierie des Matériaux Polymères, F-69621, Villeurbanne, France</i>
<b>13:15-13:30</b> <b>PROJECT</b>	<b>Welcome to the European Light Source Landscape Overview, Possibilities, Offers to you</b> B. Wolter <sup>1</sup> , A. Vollmer <sup>1</sup> , B. Schramm <sup>2</sup> , M. Grobosch <sup>2</sup> , M. Helm <sup>2</sup> <sup>1</sup> <i>User Coordination BESSY II, Helmholtz-Zentrum Berlin für Materialien und Energy GmbH, Albert-Einstein-Str. 15, 12489 Berlin, Germany</i> <sup>2</sup> <i>Helmholtz-Zentrum Dresden-Rossendorf e.V. Bautzner Landstrasse 400, 01328 Dresden, Germany</i>
<b>13:30-15:00</b>	<b>Lunch Break</b>

ISFOE18 Posters 1-Exhibition-Networking					
15:00-17:30	Workshop on OPVs & Perovskite PVs 1 (Room: Crystal Hall) Chair: K. Porfyrakis, University of Oxford, UK			15:00-17:30	HOPE-A-IAPE Joint Workshop on Organic Electronics (Room: Timber Hall 2)
15:00-15:30 KEYNOTE	Spray-processing and stability of perovskite PV devices D. Lidzey Dept. of Physics and Astronomy, The University of Sheffield, UK	15:30-17:30	Workshop on OTFTs, Sensors & Circuits 1 (Room: Timber Hall 1) Chair: F. Castro, NPL, UK	15:00-15:15	Welcome S. Logothetidis, President of HOPE-A L. Lulai, Vice Secretary of IAPE
15:30-16:00 INVITED	Energy level alignment and surface properties of Pb-free halide double perovskites G. Volonakis University of Oxford, UK	15:30-16:00 INVITED	Organic electronics application overview from XR detectors to fingerprint sensors A. Martinent CEA Liten, France	15:15-15:45	Presentation of IAPE Vice Secretary, Prof. L. Lulai (IAPE, Beijing institute of Graphic Communication, China)
16:00-16:30 INVITED	Opto-electronic characterization of third-generation solar cells M. Neukom <sup>1,2</sup> , S. Züfle <sup>1,2</sup> , S. Jenatsch <sup>1</sup> , B. Ruhstaller <sup>1,2</sup> <sup>1</sup> Fluxim AG, Winterthur, Switzerland <sup>2</sup> Institute of Computational Physics, ZHAW, Winterthur, Switzerland	16:00-16:15	N-type Doping of Organic Thin Film Transistors J. Panidi <sup>1</sup> , L. Tsetseris <sup>2</sup> , M. Heeney <sup>3</sup> , T. D. Anthopoulos <sup>4</sup> <sup>1</sup> Dept Physics & Centre of Plastic Electronics, Imperial College London, U.K. <sup>2</sup> Dept Physics, National Technical University of Athens, Greece <sup>3</sup> Dept Chemistry & Centre of Plastic Electronics, Imperial College London, UK <sup>4</sup> Division of Physical Sciences and Engineering, King Abdullah University of Science & Technology (KAUST), Saudi Arabia	16:00-16:15	Presentation of HOPE-A President, Prof. S. Logothetidis (HOPE-A, Greece)
		16:15-16:30	Reverse dark current in organic photodetectors J. Kublitski <sup>1</sup> , D. Spoltore <sup>1</sup> , A. Hofacker <sup>1</sup> , K. Vandewal <sup>2</sup> , K. Leo <sup>1</sup> <sup>1</sup> IAPP - Integrated Center for Applied Physics and Photonic Materials – TU Dresden Dresden, Germany <sup>2</sup> Universiteit Hasselt, Hasselt, Belgium	16:15-16:30	Dr. A. Laskarakis, (LTFN, AUTH, Greece) "Nanotechnology Lab LTFN & COPE-H"
16:30-17:00 INVITED	Innovative approaches for the construction of perovskite solar cells P.Lianos, D.Raptis Department of Chemical Engineering, University of Patras, Greece	16:30-16:45	Large-area flexible OTFTs via Roll-to-Roll compatible printing techniques C. Koutsiaqi, T. Kaimakamis, C. Kamaraki, K. Stavrou, A. Papamichail, C. Gravalidis, S. Logothetidis Nanotechnology Lab LTFN, Dept Physics, Aristotle University of Thessaloniki, Greece	16:30-16:45	Presentation of HOPE-A member, Prof. I. Kallitsis (Advanced Polymers & Hybrid Nanomaterials Research Lab, Chemistry Dept., University of Patras, Greece): "Research Commercialization in Organic Electronics of Western Greece"
		16:45-17:00	Transferable ITO Thin Films for Transparent Organic Electronics Yi-Siou Li, Yian Tai Dept Chemical Engineering, National Taiwan University of Science & Technology, Taipei, Taiwan (R.O.C)	16:45-17:00	Presentation of HOPE-A member, Dr. L. Tourasanidis (A. Hatzopoulos S.A., Greece): "Smart Flexible Packaging – A printer's perspective"
17:00-17:15	Novel methodology based on Spectroscopic Ellipsometry for In-Line and Real-Time quality control of Roll-to-Roll printed Perovskite films A. Zachariadis <sup>1</sup> , C.Kamaraki <sup>1</sup> , C.Kapnopoulos <sup>1</sup> , A.Galatsopoulos <sup>1</sup> , E.Mekeridis <sup>2</sup> , A.Laskarakis <sup>1</sup> , S.Logothetidis <sup>1</sup> <sup>1</sup> Nanotechnology Lab LTFN, Dept Physics, Aristotle University of Thessaloniki, Greece <sup>2</sup> Organic Electronic Technologies, Thessaloniki, Greece	17:00-17:15	Improving the Ambipolar Charge Transport Characteristics of Diketopyrrolopyrrole (DPP)-Based Polymer for Transparent Organic Thin Film Transistors (OTFTs) Ping-Chen Kao, Meng-Tieh Liu, Yian Tai Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan (R.O.C)	17:00-17:15	Presentation of HOPE-A member, Mr. V. Matskos (OET, Greece): "OET Enabling Fully Printed Organic Photovoltaic and OLED Technology for Mass Market Entry"
17:15-17:30 YRA Candidate	Design and Optimisation of Fully Printable Perovskite Solar Modules by Scribing Method S. Meroni, K. Hooper, F. De Rossi, J. Baker, W. Dixon, T. Watson SPECIFIC, Swansea University Engineering East Building, Bay Campus, Swansea, UK	17:15-17:30	P3HT/PVA based Organic Field-Effect Transistors G. V. Leite, H. I. Boudinov Instituto de Física, Universidade Federal do Rio Grande do Sul Av. Bento Gonçalves, Porto Alegre, Brazil	17:15-17:30	Discussion and Closing Remarks
17:30-20:00	Coffee Break ISFOE18 Poster Session 1-Exhibition-Networking				
20:00	DINNER FOR ISFOE18 KEYNOTE AND INVITED SPEAKERS				




<b>08:00 Registration</b>					
<b>09:00-11:00</b>	<b>Workshop on OLAE Materials 3 (Room: Timber Hall 1)</b> Chair: P. Lianos, University of Patras, Greece		<b>09:00-11:00</b>	<b>Workshop on EU Projects on Nanotechnologies &amp; Advanced materials for OPVs and Perovskites (ISFOE18 &amp; NN18) (Room: Timber Hall 2)</b> Chairs: S. Perraud, CEA LITEN, France, A. Laskarakis, LTFN, AUTH, Greece	
<b>09:00-09:30</b> INVITED	<b>Flexible Glass Applications &amp; Process Scaling</b> M. Prassas <sup>1</sup> , S. Garner <sup>2</sup> <sup>1</sup> Corning European Technology Center France <sup>2</sup> Corning Research & Development Corporation USA	<b>09:30-11:00</b>	<b>Workshop on Graphene &amp; 2D Materials 1 (ISFOE18 &amp; NN18_WS) (Room: Dock Six 2)</b> Chair: L. Lidorikis, University of Ioannina, Greece	<b>09:00-09:15</b>	<b>Introduction to NAMEC</b> S. Perraud CEA LITEN, France
				<b>09:15-09:30</b>	<b>Project FOF SmartLine: Smart In-line metrology and control for boosting the yield and quality of high-volume manufacturing of Organic electronics</b> A. Laskarakis Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, Greece
<b>09:30-10:00</b> INVITED	<b>Volume Plasma functionalisation of GNP and its applications in printed electronics</b> T. Claypole MBE Welsh Centre for Printing and Coating, Swansea University Bay Campus, Crymlyn Burrows, Swansea, UK	<b>09:30-10:00</b> INVITED	<b>2D-materials-based composites for energy applications</b> F. Bonaccorso Istituto Italiano di Tecnologia, Italy	<b>09:30-09:45</b>	<b>Cornet Horizon 2020 Project: Multiscale modelling and characterization to optimize the manufacturing processes of Organic Electronics materials and devices</b> F. Logothetidi Hellenic Organic & Printed Electronics Association, Greece
				<b>09:45-10:00</b>	<b>Horizon 2020 CHEOPS – Production technology to achieve low Cost and Highly Efficient photovoltaic Perovskite Solar cells</b> A. Walter CSEM SA, PV-Center, Jaquet-Droz 1, CH-2000 Neuchâtel, Switzerland
<b>10:00-10:30</b> INVITED	<b>Using X-ray Photoelectron Spectroscopy to understand PV, TFT and LED Materials</b> A. Regoutz <sup>1</sup> , T.D. Anthopolous <sup>2</sup> , M.A. McLachlan <sup>1</sup> , D.J. Payne <sup>1</sup> <sup>1</sup> Department of Materials, Imperial College London, Exhibition Road, London, SW7 2AZ, UK <sup>2</sup> Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology, Thuwal 23955-6900, Saudi Arabia	<b>10:00-10:30</b> INVITED	<b>A 2D material based platform for wireless electronics and sensing</b> G. Deligeorgis, F. Iacovella FORTH – IESL Microelectronics Research Group, P.O.Box 1583 Irakleio, Crete, Greece	<b>10:00-10:15</b>	<b>inSCOPE: Open-access pilot line to accelerate industrial uptake of hybrid printed electronics</b> C. Rentrop <sup>1</sup> , G. Arutinov <sup>1</sup> , M. Cauwe <sup>2</sup> , A. Monte <sup>2</sup> , L. Clerc <sup>3</sup> , K. Keränen <sup>4</sup> , T. Marsden <sup>5</sup> <sup>1</sup> Holst Centre <sup>2</sup> imec-Cmst <sup>3</sup> CEA-LITEN, <sup>4</sup> VTT, <sup>5</sup> CPI
				<b>10:15-10:30</b>	<b>Project TranspEnergy: color-on-demand solar modules</b> Rana Adel(1), Enrique Pascual San José(2), Mariano Campoy-Quiles(2), Marco Stella(1) (1) Eurecat, Centre Tecnològic de Catalunya, Functional Printing and Embedded Devices Unit, Av. d'Ernest Lluch 36, Parc Científic TecnoCampus, 0830 2-Mataró (Barcelona, Spain) (2) Institut de Ciència de Materials de Barcelona (ICMAB), Bellaterra (Barcelona, Spain)
<b>10:30-10:45</b>	<b>Preparation and screen-printing application in flexible substrate of conductive thermally expandable microspheres</b> Sun Zhicheng, Jiao Shouzheng, Li Furong, Yang Nan, Zhang Xiaoliang, Li Luhai Beijing Engineering Research Center of Printed Electronics, Beijing Institute of Graphic Communication, No.1 (band -2) Xinghua Street, Daxing District, Beijing, 102600, China	<b>10:30-10:45</b>	<b>Epitaxial graphene sensor for ultra-low NO2 concentrations for environmental monitoring</b> C. Melios National Physical Laboratory, UK	<b>10:30-10:45</b>	<b>MAESTRO Marie Skłodowska-Curie Action ITN: Making Perovskites Truly Exploitable</b> A. Kaltzoglou <sup>1</sup> , P. Falaras <sup>1</sup> , A. Walker <sup>2</sup> <sup>1</sup> Institute of Nanoscience and Nanotechnology, NCSR Demokritos, 15341, Agia Paraskevi Attikis, Athens, Greece <sup>2</sup> Department of Physics, University of Bath Bath BA2 7AY, UK
<b>10:45-11:00</b>	<b>The applications of conductive ink on printed electronics</b> Li Luhai, GAO Bo School of Printing & Packaging Engineering, Beijing Institute of Graphic communication, No.1, Xinghua Street, Section 2, Daxing District, Beijing, China	<b>10:45-11:00</b>	<b>The effect of concentration of plasma functionalized graphene nanoplatelets on the rheological and print performance of conductive inks</b> A. Claypole, D. O'Connor, S. Potts, J. Claypole, T. Claypole Welsh Centre for Printing and Coating, Swansea University Swansea University Bay Campus, Crymlyn Burrows		
<b>11:00-11:30 Coffee Break</b> <b>ISFOE18 Posters 1-Exhibition-Networking</b>					
<b>11:30-13:30</b>	<b>Workshop on OLAE Materials 4 (Room: Timber Hall 1)</b> Chair: Y. Bonnassieux, LPICM, CNRS, Ecole Polytechnique, Palaiseau Cedex, France	<b>11:30-13:30</b>	<b>Workshop on Graphene &amp; 2D Materials 2 (ISFOE18 &amp; NN18_WS) (Room: Dock Six 2)</b> Chair: F. Bonaccorso, Istituto Italiano di Tecnologia, Italy (tbc) G. Deligeorgis, FORTH IESL, Greece (tbc)		
<b>11:30-12:00</b> INVITED	<b>Quality Factors in Permeation Barrier Coatings on Flexible Polymer Webs</b> J. Fahlteich, M. Top, S. Hinze, N. Prager, M. Fahland	<b>11:30-12:00</b> KEYNOTE	<b>2D semiconductor optics and (opto-)electronics</b> T. Mueller Vienna University of Technology, Austria	<b>12:00-13:30</b>	<b>Workshop on I3D 1 (Room : Timber Hall 2)</b> Chair: S. Tsimikli, OET, Greece

	<i>Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Dresden, Germany</i>				
<b>11:30-12:00 INVITED</b>	<b>Printed Batteries – State-of-the-Art for applications</b> M. Krebs <i>VARTA Microbattery, Germany</i>	<b>12:00-12:30 INVITED</b>	<b>Carbon and Related Nanomaterials: Atomic Structural and Configuration Studies</b> R. Arenal <i>INA &amp; Fundacion ARAID, Spain</i>	<b>12:00-12:30 INVITED</b>	<b>Hybrid electronics integration by inkjet technology</b> M. Grooten <sup>1</sup> , <i>DoMicro BV</i> <i>Luchthavenweg 10, 5657EB Eindhoven, The Netherlands</i>
<b>12:30-12:45</b>	<b>A New Method of Fabricating High Performance Transparent Electrodes Using Multiple Long Chains of Nanowires</b> M. Sam <sup>1</sup> , D. Orlis <sup>2</sup> , D. Fakis <sup>2</sup> , R. Bhiladvala <sup>1</sup> <sup>1</sup> <i>Department of Mechanical Engineering, IESVic and CAMTEC, University of Victoria, Victoria, BC, Canada</i> <sup>2</sup> <i>Fieldscale PC, N. Plastira 45, 54250, Thessaloniki, Greece</i>	<b>12:30-13:00 INVITED</b>	<b>2D WSe<sub>2</sub>: Mechanical Properties and Processing with Vapour XeF<sub>2</sub></b> V. Koutsos <i>University of Edinburgh, United Kingdom</i>	<b>12:30-12:45 YRA Candidate</b>	<b>3D printed supercapacitors from 2D material inks</b> C. Grotta <sup>1</sup> , P. Sherrell <sup>1</sup> , P. Palczynski <sup>1</sup> , M. Sokolikova <sup>1</sup> , A. Panagiotopoulos <sup>1</sup> , C. Mattevi <sup>1</sup> <sup>1</sup> <i>Department of Materials, Imperial College London Royal School of Mines, Exhibition Road, SW7 2AZ London, United Kingdom</i>
<b>12:45-13:00</b>	<b>Thermally evaporated nickel oxide as charge transport layer for photovoltaics</b> A. Ismail <sup>1,2</sup> , T. D. Anthopoulos <sup>3,4</sup> , M. A. McLachlan <sup>1</sup> <sup>1</sup> <i>Dept Materials &amp; Centre for Plastic Electronics, Imperial College London, UK</i> , <sup>2</sup> <i>Dept of Physics, Zagazig University, Egypt</i> , <sup>3</sup> <i>Dept of Physics &amp; Centre for Plastic Electronics, Imperial College London, UK</i> <sup>4</sup> <i>Division of Physical Sciences and Engineering, KAUST, Saudi Arabia</i>			<b>12:45-13:00</b>	<b>3D Printed Imaging Phantoms for Smarter SPECT Algorithm</b> J. Babiuch-Hall <sup>1</sup> , K. Kacperski <sup>2</sup> , M. Gierszewska, M. Ustynowicz, W. Adamczyk <sup>1</sup> , A. Korneluk <sup>1</sup> , N. Kuk <sup>1</sup> , K. Ornat <sup>1</sup> , P. Szczypkowski <sup>1</sup> , W. Zdziarska <sup>1</sup> , J. Szczytko <sup>1</sup> <sup>1</sup> <i>Faculty of Physics, University of Warsaw, Warsaw, Poland</i> <sup>2</sup> <i>Department of Medical Physics, Maria Skłodowska-Curie Institute of Oncology Warsaw, Poland</i>
<b>13:00-13:15</b>	<b>Silver nanoparticle based ink of high conductivity and low sintering temperature for paper electronics</b> Bo Gao, Lixin Mo <i>Beijing Engin. Research Center of Printed Electronics, Beijing Institute of Graphic Communication, Beijing, People's Republic of China</i>	<b>13:00-13:15</b>	<b>Graphene / titania architectures for enhanced photocatalytic activity</b> D. De Angelis <i>University of Trieste, Italy</i>	<b>13:00-13:30 INVITED</b>	<b>Laser writing of nanomaterials for wearable sensors</b> A. Palla Papavlu <i>National Institute for Laser, Plasma &amp; Radiation Physics (INFILPR), Romania</i>
<b>13:15-13:30</b>	<b>Research on photo paper based conductive pattern with nano-metallic ink</b> Yi. Fang, Lai Peng <i>School of Printing &amp; Packaging Engineering, Beijing Institute of Graphic Communication, Beijing, China</i>	<b>13:15-13:30</b>	<b>Liquid-phase interfacial nanoassembly of molecular building units into porous nanosheet crystals</b> R. Makiura <i>Osaka Prefecture University, Osaka, Japan</i>		

**13:30-15:00 Lunch Break-Networking - BUSINESS FORUM 1 ISFOE18 Posters 1**

		<b>15:00-17:45</b>	<b>Workshop on OTFTs, Sensors &amp; Circuits 2 (Room: Timber Hall 2)</b> Chair: G. Volonakis, University of Oxford, UK	<b>15:00-17:30</b>	<b>Workshop on Graphene &amp; 2D Materials 3 (ISFOE18 &amp; NN18_W5) (Room: Dock Six 2)</b> Chair: V. Koutsos, University of Edinburgh, UK (tbc)
<b>15:30-17:45</b>	<b>Workshop on OPVs &amp; Perovskite PV 2 (Room: Tmber Hall 1)</b> Chair: K. Fostropoulos, HZB, Germany	<b>15:00-15:30 KEYNOTE</b>	<b>Highly crystalline organic semiconductors for flexible organic electronics</b> V. Podzorov <i>Department of Physics, Rutgers University, New Jersey, USA</i>	<b>15:00-15:30 INVITED</b>	<b>Hybrid Graphene-Silicon Optoelectronics for Telecom Applications</b> I. Goykhman <i>Technion - Israel Institute of Technology, Israel</i>
<b>15:30-16:00 INVITED</b>	<b>Ionic migration in Hybrid Perovskites Solar Cells</b> Y. Bonnassieux <sup>1</sup> , H. Lee <sup>1</sup> , P. Chapon <sup>2</sup> , A. Marronnier <sup>1</sup> , D. Tondelier <sup>1</sup> , J. E. Bourrée <sup>1</sup> and B. Geffroy <sup>1,3</sup> <sup>1</sup> <i>LPICM, CNRS, Ecole Polytechnique, Palaiseau Cedex, France</i> <sup>2</sup> <i>Horiba Jobin Yvon S.A.S., Longjumeau Cedex, France</i> <sup>3</sup> <i>LICSEN, NIMBE, CEA, CNRS, Univ. Paris-Saclay, CEA Saclay, France</i>	<b>15:30-16:00 INVITED</b>	<b>Organic MEMS designed by and for organic electronics</b> C. Ayela <sup>1</sup> , D. Thuau <sup>1</sup> , M. Matta <sup>2</sup> , M. Pereira <sup>1</sup> , M. Abbas <sup>1</sup> , G. Wantz <sup>1</sup> , L. Hirsch <sup>1</sup> , L. Muccioli <sup>3</sup> , I. Dufour <sup>1</sup> <sup>1</sup> <i>Univ. Bordeaux, Labe de l'Intégration du Matériau au Système, UMR 5218, ENSCBP, Pessac Cedex, France</i> <sup>2</sup> <i>Department of Chemistry, Northwestern University, Illinois, USA.</i> <sup>3</sup> <i>Dipartimento di Chimica Industriale "Toso Montanari", Università di Bologna, Bologna, Italy</i>	<b>15:30-16:00 INVITED</b>	<b>Nonlinear Electrodynamics of Graphene</b> S. Mikhailov <i>University of Augsburg, Germany</i>
<b>16:00-16:30 INVITED</b>	<b>Processing, Crystallinity and Stability in Perovskite Solar Cells</b> M. McLachlan <i>Dept. of Materials, Imperial College London, UK</i>	<b>16:00-16:15</b>	<b>An Active Electrode for Biopotential Measurements Integrating an a-IGZO TFT Front-end on Flexible Substrate</b> C. Garripoli <sup>1</sup> , S. Abdinia <sup>1</sup> , J-L. P.J. van der Steen <sup>2</sup> , G.G.H. Gelinck <sup>2</sup> , E. Cantatore <sup>1</sup> <sup>1</sup> <i>Eindhoven University of Technology, Eindhoven, Nederland</i> <sup>2</sup> <i>Holst Centre, Eindhoven, Nederland</i>	<b>16:00-16:15</b>	<b>Deep and fast free-space electro-absorption modulation in a mobility-independent graphene-loaded Bragg resonator</b> S. Doukas, A. Chatzilaris, A. Dagkii, A. Papagiannopoulos, E. Lidorikis <i>Department of Materials Science and Engineering, University of Ioannina, 45110 Ioannina, Greece</i>

		16:15-16:30	<b>The impact of p-doping in ternary blend organic thin-film transistors</b> A.Paterson, Y.-H. Lin, A. D. Mottram, Z. Fei, M. R. Niazi, A. R. Kirmani, A. Amassian, O. Solomeshch, N. Tessler, M. Heeney, and T. D. Anthopoulos <i>Division of Physical Sciences and Engineering, King Abdullah University of Science and Technology, Saudi Arabia</i>	16:15-16:30	<b>Carbon Dioxide Capture by Amine-Functionalized Zeolitic Imidazolate Frameworks (ZIFs), Graphene Oxide, and ZIF/Graphene Oxide Nanocomposites under Dry and Wet Conditions</b> G. N. Karanikolos <i>Khalifa University of Science &amp; Technology, UAE</i>
16:30-16:45	<b>Scalable Fabrication of flexible perovskite solar cells by slot - die coating</b> C. Kamaraki <sup>1</sup> , A.Zachariadis <sup>1</sup> , C.Kapnopoulos <sup>1</sup> , C.Koutsiaiki <sup>1</sup> , K. Stavrou <sup>1</sup> , A.Galatsopoulos <sup>1</sup> , E.Mekeridis <sup>2</sup> , C.Gravalidis <sup>1</sup> , A.Laskarakis <sup>1</sup> , S.Logotheidis <sup>1</sup> <sup>1</sup> <i>Nanotechnology Lab LTFN, Dept Physics, Aristotle University of Thessaloniki, Greece</i> <sup>2</sup> <i>Organic Electronic Technologies, Thessaloniki, Greece</i>	16:30-16:45	<b>Flexible UV-to-NIR photodetectors based on nanogap coplanar electrodes</b> D. G. Georgiadou <sup>1,2</sup> , Y. H. Lin <sup>3</sup> , P. Giraud <sup>4</sup> , G. Wyatt-Moon <sup>3</sup> , J. Lim <sup>3</sup> , M. A. McLachlan <sup>2</sup> , S. N. Cha <sup>4</sup> , H. J. Snaith <sup>3</sup> , T. D. Anthopoulos <sup>1,5</sup> <sup>1</sup> <i>Department of Physics &amp; Centre for Plastic Electronics, Imperial College London, UK</i> <sup>2</sup> <i>Department of Materials, Imperial College London, UK</i> <sup>3</sup> <i>Department of Physics, University of Oxford, Clarendon Lab, Oxford, UK</i> <sup>4</sup> <i>Department of Engineering Science, University of Oxford, UK</i> <sup>5</sup> <i>Materials Science &amp; Engineering, Division of Physical Sciences and Engineering, KAUST, Kingdom of Saudi Arabia</i>	16:30-16:45	<b>Growth of single-layer Graphene with Chemical Vapor Deposition on 6" copper substrates, characterization and transfer to arbitrary substrates</b> V. Kyriazopoulos, M. Chatzidis, G. Nomikos, A. Papamichail, A. Zachariadis, A. Laskarakis, S. Logotheidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</i>
16:45-17:15 INVITED	<b>Making and breaking the exciton in layered halide hybrid perovskites</b> M. Kepenekian <i>CNRS - Université de Rennes 1, France</i>	16:45-17:00	<b>Effect of a screen-printed gate on electrical stability of P- OTFTs</b> C. Haddad <sup>1</sup> , S. Jacob <sup>1</sup> , M. Charbonneau <sup>1</sup> , A. Revaux <sup>1</sup> , G. Ghibaudo <sup>2</sup> <sup>1</sup> <i>Univ. Grenoble Alpes, CEA-LITEN,</i> <sup>2</sup> <i>IMEP-LAHC, INPG-Minatec Grenoble, France</i>	16:45-17:00	<b>Hydrogen storage in carbon via water splitting</b> L. Ciarnaruchi <i>ICFO, Spain</i>
		17:00-17:15	<b>CO<sub>2</sub> sensor based on Carbon Nanotubes for detection of lactose fermentation</b> María Vela-Cano <sup>1</sup> , José F. Salmeron <sup>2</sup> , María A. Rivadeneyra <sup>1</sup> , Florin C. Loghin <sup>2</sup> , Markus Becherer <sup>2</sup> , Jesús Gonzalez-Lopez <sup>1</sup> , Almudena Rivadeneyra <sup>2</sup> <sup>1</sup> <i>Department of Microbiology, University of Granada, Granada, Spain</i> <sup>2</sup> <i>Institute for Nanoelectronics, Technical University of Munich, Germany</i>	17:00-17:15	<b>Biodegradable and Biocompatible Black Phosphorus Field Effect Transistors for Green Electronics</b> Min-Kyu Song <i>Yonsei University &amp; Yonsei Institute of Convergence Technology, South Korea</i>
17:15-17:30	<b>Wide Energy Level Tuning of Subphthalocyanines for Fullerene-Free Organic Solar Cells with Low Energy Losses</b> V.C. Nikolis <sup>1</sup> , J. Benduhn <sup>1</sup> , M. Lau <sup>1</sup> , M. Ince <sup>2</sup> , D. Spoltore <sup>1</sup> , K. Vandewal <sup>1,3</sup> <sup>1</sup> <i>Institute of Applied Physics, Technical University Dresden, Germany</i> <sup>2</sup> <i>Department of Energy Systems Engineering, Mersin University, Turkey</i> <sup>3</sup> <i>Institute for Materials Research (IMO-IMOMEC), Hasselt University, Diepenbeek, Belgium</i>	17:15-17:30	<b>Modeling the Frequency Response of Organic Metal-Insulator-Semiconductor Capacitors</b> Prashanth Kumar M, Logesh K and Soumya Dutta <i>Department of Electrical Engineering, Indian Institute of Technology Madras, Chennai, India</i>	17:15-17:30	<b>Synthesis of Nitrogen doped Graphene Quantum and Application on Fibers as a Potential Multifunctional Textiles</b> B.H.S.Felipe <sup>1</sup> , R.L.Sivam <sup>2</sup> , L.H.S. de Moura <sup>1</sup> , W. F.Praxedes <sup>3</sup> , J. M. T. C. Dias <sup>1</sup> , N.S. Nascimento <sup>1</sup> , J.H.O.Nascimento <sup>1,4</sup> <i>Federal University of Rio Grande do Norte, Brazil</i>
		17:30-17:45	<b>Highly Oxidation-Resistant Polyimide /Copper nanowire/Polyimide Sandwich Structure Electrode for Stretchable and Transparent Optoelectronics Devices</b> J.-M. Chiu, I. Wahdini, Y. Tai <i>Department of Chemical Engineering, National Taiwan University of Science and Technology, Taipei 10607, Taiwan</i>		
18:00-18:30	<b>Coffee Break</b> <b>ISFOE18 Posters 1-Exhibition-Networking</b>				

<b>18:30 - 20:30</b>		<b>PLENARY SESSION NANOTECHNOLOGY 2018 (Room: Grand Petra)</b>
<b>18:30-19:00</b>		<b>Introduction by Prof. S. Logothetidis, ISFOE18 &amp; NN18 Chairman</b>
<b>19:00-19:30</b> <b>PLENARY</b>		<b>Plastic Nanoelectronics for the Internet of Things (IoT)</b> <b>Thomas Anthopoulos</b> <i>Physical Science and Engineering Division, KAUST, Saudi Arabia</i>
<b>19:30-20:00</b> <b>PLENARY</b>		<b>Bio-responsive Hybrid Materials for Regenerative Medicine and Biosensing</b> <b>Molly Stevens</b> <i>Imperial College London, UK</i>
<b>20:00-20:30</b> <b>PLENARY</b>		<b>Nanotechnology, 3D Printing and Organic Electronics in Automotive applications</b> <b>Ashutosh Tomar</b> <i>Jaguar Land Rover, UK</i>
<b>21:00</b>	<b>DRINKS &amp; OFFICIAL DINNER (ISFOE18 &amp; NN18) PORTO PALACE CONFERENCE CENTRE &amp; HOTEL - ROOF GARDEN</b>	

<b>08:00-</b>	<b>Registration</b>		
		<b>09:00 - 11:00</b>	<b>Workshop on Graphene &amp; 2D Materials 4 (ISFOE18 &amp; NN18_W5) Room: Crystal Hall</b> Chairs: E. Lidorikis, University of Ioannina, Greece
<b>09:30–11:00</b>	<b>Workshop on OLAE Materials 5 (Room: Timber Hall 1)</b> Chair: J. Fahlteich, Fraunhofer FEP, Germany	<b>09:00-09:30</b> <b>KEYNOTE</b>	<b>Water and Organic Vapours Controlling Opto-electronic Properties of 2D Materials</b> J.P. Rabe, H. Lin, A.R. Kamoka, J.D. Cojal González, N. Severin, I.M. Sokolov <i>Department of Physics &amp; IRIS Adlershof, Humboldt-Universität zu Berlin, Newtonstr. 15, 12489 Berlin, Germany</i>
<b>09:30-10:00</b> <b>INVITED</b>	<b>Isolation of IC70BA isomers for organic photovoltaics</b> M. A. Lebedeva <sup>1,2</sup> , K. Porfyraakis <sup>1</sup> <sup>1</sup> Department of Materials, University of Oxford, 16 Parks Road, Oxford, OX1 3PH <sup>2</sup> Chemistry Research Laboratory, University of Oxford, 12 Mansfield Road, Oxford, OX1 3TA	<b>09:30-10:00</b> <b>INVITED</b>	<b>Raman and infrared active rigid-layer modes and topological boundary phonons in multi-layered materials</b> I. Milošević <i>University of Belgrade, Serbia</i>
<b>10:00-10:15</b>	<b>Improving Hole Transport in CuSCN Thin-Film Transistors by Solvent Treatment</b> P. Pattanasattayavong, P. Worakajit <i>Department of Materials Science and Engineering, School of Molecular Science and Engineering, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand</i>	<b>10:00-10:30</b> <b>INVITED</b>	<b>Modeling and design of graphene-based photodetectors and modulators</b> E. Lidorikis <i>University of Ioannina, Greece</i>
<b>10:15-10:30</b>	<b>An investigation of the excited states of C8-BTBT by ultra-fast laser spectroscopy</b> J. Garrido-Velasco <sup>1</sup> , O. Korychenska <sup>2</sup> , A. J. Musser <sup>1</sup> , A. Oriana <sup>3</sup> , N. Paul <sup>1</sup> , T. Virgili <sup>1</sup> , A. Stradomska <sup>4</sup> , A. Iraqi <sup>2</sup> , M. Geoghegan <sup>1</sup> , J. Clark <sup>1</sup> <sup>1</sup> Department of Physics and Astronomy, University of Sheffield, Hounsfield Road, Sheffield S3 7RH, UK, <sup>2</sup> Department of Chemistry, University of Sheffield, Brook Hill, Sheffield S10 7HF, UK, <sup>3</sup> Dipartimento di Fisica, Politecnico di Milano, Piazza L. Da Vinci 32, 20133 Milano, Italy, <sup>4</sup> School of Chemistry, University of Glasgow, University Avenue, Glasgow, G12 8QQ, United Kingdom		
<b>10:30–10:45</b>	<b>Conductive Properties of Laser-Scribed Polyimide Films: Optimization for Optimal Dose and Reliability</b> T. Cai, A Yachnes, S. Kaya, and W Jadwisieniczak <i>School of Elec Eng &amp; Comp Sci, Ohio University, 361 Stocker Center, Athens OH 45701 USA</i>	<b>10:30–10:45</b>	<b>Mesoscopic Perspective on Quantum Hall Effects in Graphene with a P-N Junction</b> Nojoon Myoung <i>Chosun University, Republic of Korea</i>
<b>10:45–11:00</b>	<b>Tautomerization effect on magnetic properties of transition metal coordination compounds</b> M. Witkowski <sup>1,2</sup> , A. Woźniak <sup>1,3</sup> , P. Szarek <sup>1</sup> <sup>1</sup> Centre of New Technologies, University of Warsaw, Żwirki i Wigury 93, 02089 Warsaw, Poland <sup>2</sup> Faculty of Physics, University of Warsaw, L. Pasteura 5, 02093 Warsaw, Poland <sup>3</sup> Faculty of Chemistry, University of Warsaw, L. Pasteura 1, 02093 Warsaw, Poland	<b>10:45–11:00</b>	<b>Stretching graphene using electron-beam stimulated polymeric micro-muscles</b> F. Colangelo <i>Scuola Normale Superiore and CNR Istituto Nanoscienze, Pisa, Italy</i>
<b>11:00– 11:30</b>	<b>Coffee Break</b> <b>ISFOE18 Posters 2-Exhibition-Networking</b>		
<b>11:30-13:30</b>	<b>Workshop on OTFTs, Sensors &amp; Circuits 3 (Room : Timber Hall 1)</b> Chair: K. Porfyraakis, University of Oxford, UK		
<b>11:30-12:00</b> <b>KEYNOTE</b>	<b>Solution-processed superlattice-like metal oxide transistors</b> T. Anthopoulos <i>King Abdullah University of Science and Technology (KAUST)</i> <i>KAUST Solar Centre, Division of Physical Sciences and Engineering, Kingdom of Saudi Arabia</i>	<b>12:00-13:30</b>	<b>Workshop on I3D 2 (Room : Crystal Hall)</b> Chair: : L. van Langenhove, Ghent University, Belgium
<b>12:00-12:30</b> <b>INVITED</b>	<b>Defect control in laser printed and solution processed organic field effect transistors</b> O.D. Jurchescu <i>Department of Physics, Wake Forest University, Winston-Salem, NC 27109, USA</i>	<b>12:00-12:30</b> <b>INVITED</b>	<b>Inkjet printing of OLEDs-from large area to high resolution</b> C. Boeffel, M. Gensler, A. Wedel <i>Fraunhofer IAP, Functional Materials and Devices, Geiselbergstr. 69, 14476 Potsdam, Germany</i>
<b>12:30-13:00</b> <b>INVITED</b>	<b>Energy Harvesting with Thermoelectric and Piezoelectric Textiles</b> C. Müller <i>Chemistry and Chemical Engineering, Chalmers University, Sweden</i>	<b>12:30-13:00</b> <b>INVITED</b>	<b>OET hits 7.4% New World Record Efficiency for Single Structure Fully Printed Organic Photovoltaic by Roll to Roll Processes</b> E. Mekeridis <sup>1</sup> , S. Tsimikli <sup>1</sup> , A. Zachariadis <sup>2</sup> , E.M. Pechlivani <sup>1</sup> , A. Laskarakis <sup>2</sup> , C. Kapnopoulos <sup>2</sup> , S. Logothetidis <sup>2</sup> , V. Matskos <sup>1</sup> <sup>1</sup> Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, Thessaloniki, 57001, Greece <sup>2</sup> Nanotechnology Lab LTFN - Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece
<b>13:00-13:15</b>	<b>Surface topology for in-line inspection of flexible electronics</b> <b>Application of areal wavelength-scanning interferometer</b> Jorrit de Vries <sup>1</sup> , Ivo Hamersma <sup>1</sup> , Theresa Burke <sup>1</sup> , C. Kapnopoulos <sup>2</sup> , S. Logothetidis <sup>2</sup> , E. Mekeridis <sup>3</sup>	<b>13:00-13:15</b>	<b>Printing with Light: ultrafast printing technologies enabling Flexible Electronics</b> G. Arutinov, M. Giesbers, S. van Waalwijk van Doorn, J. van den Brand <i>Holst Centre / TNO, High Tech Campus 31, Eindhoven, The Netherlands</i>

	<sup>1</sup> IBS Precision Engineering, Esp 201, 5633 AD Eindhoven, The Netherlands <sup>2</sup> Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece <sup>3</sup> Organic Electronic Technologies (OET), Antoni Tritsi 21B, 57001 Thessaloniki, Greece		
13:15-13:30	<b>Energy storage screen printing ink and its application in all-solid-state flexible supercapacitors</b> Li Yaling, Li Luhai, Xie Zhujun, Yang Zheng, Xie Jiexin Beijing Engineering Research Center of Printed Electronics, Beijing Institute of Graphic Communication No.1 (Band -2) Xinghua Street, Daxing District, Beijing, PR China	13:15-13:30	<b>Color- Tailored Polymer OLEDs: Manufacturing and Characterization</b> M. Gioti <sup>2</sup> , D. Kokkinos <sup>1</sup> , K. Stavrou <sup>2</sup> , S. Kassaveti <sup>2</sup> , E. Mekeridis <sup>1</sup> , E.M. Pechlivani <sup>1</sup> , S. Logothetidis <sup>2</sup> <sup>1</sup> Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, Thessaloniki, 57001, Greece <sup>2</sup> Nanotechnology Lab LTFN - Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece

13:30-15:00	<b>Lunch Break</b> <b>ISFOE18 Posters 2 (NN18 W4, W5 POSTERS)-Exhibition-Networking – BUSINESS FORUM 2</b>		
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		15:00-18:15	<b>Workshop on I3D 3 (Room: Crystal Hall)</b> Chair: C. Gravalidis, LTFN, AUTH
15:30-18:15	<b>Workshop on Smart Textiles, Wearables &amp; IoT (Room: Timber Hall 1)</b> Chair: L. Van Langenhove, University of Ghent, Belgium	15:00-15:30 KEYNOTE	<b>Customization and integration of materials into novel components for the car of the future</b> N. Li Pira Physical Analysis Department, Group Materials Labs, C.R.F. S.C.p.A Corso Settembrini 40, , 10135 Torino, Italy
15:30-16:00 INVITED	<b>Printing approach to making flexible wearable stretchable electronics</b> Z. Cui Printable Electronics Research Center (PERC), Suzhou Institute of Nano-Tech and Nano-Bionics (SINANO), Chinese Academy of Sciences, Suzhou, China	15:30-16:00 KEYNOTE	<b>Intelligent Nanomanufacturing of Flexible Organic Electronic Devices</b> A. Laskarakis Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece
16:00-16:30 INVITED	<b>Applied Research Towards the Integration of Flexible (Organic) Electronics into Textiles</b> J.-C. Kuhlmann, E. Bottenberg, G.J. Brinks Saxion University of Applied Sciences, Research Group Smart Functional Materials Van Galenstraat 19, 7511 JL Enschede, The Netherlands	16:00-16:30 INVITED	<b>Development of interactive automotive interiors based on integrated printed and smart electronics</b> J. Gomes, J. Fonseca, I. Matos, H. Costa, B. Matos, M. Ribeiro CENTI-Centre for Nanotechnology and Smart Materials Rua Fernando Mesquita, 2785, Portugal
16:30-17:00 INVITED	<b>Laser direct writing and colloidal ink jetting for conductive track fabrication on organic substrates</b> R. McCann, C. Hughes, B. Freeland, D. Brabazon APT & I-Form, School of Mechanical & Manufacturing Engineering, Dublin City University, Dublin, Ireland	16:30-17:00 INVITED	<b>Strategies for Conformable Printed Devices: stretchable, thermoforming and in mold electronics</b> P. Gaucci, A. Loi, C. Delgado, P. Lacharmonise Eurecat, Centre Tecnològic de Catalunya, Functional Printing & Embeded Devices Unit, Printed Electronic Group, Av. d'Ernest Lluch 36, Parc Científic TecnoCampus, 08302-Mataró (Barcelona, Spain)
17:00 -17:15	<b>The role and optimization of cationic agents for adhesion and electrical conductivity of graphene-coated e-textiles</b> M. A. Miankafshe <sup>1</sup> , T. Bashir <sup>1,2</sup> , N.-K. Persson <sup>1</sup> <sup>1</sup> Swedish School of Textiles, Smart Textiles, University of Borås, S-501 90 Borås, Sweden <sup>2</sup> Swedish Centre for Resource Recovery, University of Borås, S-501 90 Borås, Sweden	17:00-17:30 INVITED	<b>Scale-up challenges of R&amp;D OPV - From Lab-to-Fab</b> D. Bagnis CSEM Brasil, Brazil
17:15-17:30 PROJECT	<b>Smart and flex wearable system for light stimulation and monitoring of wound healing-EU Project MEDILIGHT</b> D. Manassis <sup>1</sup> , M. Seckel <sup>1</sup> , K. Michaelides <sup>2</sup> , D. Kallweit <sup>3</sup> , R. Ferrini <sup>3</sup> , A. Klapczynski <sup>4</sup> , N. Kuch <sup>4</sup> , N. Gretz <sup>4</sup> , J. Steinbrunn <sup>5</sup> , M. Bouschbacher <sup>5</sup> , R. Waite <sup>6</sup> and M. Urbankova <sup>7</sup> <sup>1</sup> Technical University Berlin, Gustav-Meyer-Allee 25, Berlin, Germany, <sup>2</sup> SignalGeneriX Ltd, Limassol, Cyprus, <sup>3</sup> Centre Suisse d'Electronique et de Microtechnique (CSEM), Muttenz, Switzerland <sup>4</sup> Medical Research Center, Medical Faculty Mannheim, Ruprecht-Karls-Univ. Heidelberg, Germany <sup>5</sup> Urigo Research Development and Innovation, 21304 Chenove Cedex, France, <sup>6</sup> Microsemi Semiconductor Limited, Caldicot, Monmouthshire, UK, <sup>7</sup> AMIREs s.r.o., Prague, Czech Republic	17:30 -17:45	<b>Full integration of a printed inductive charger into the automotive central console</b> A. Califórnia <sup>1</sup> , J. Gomes <sup>1</sup> , I. Matos <sup>1</sup> , H. Costa <sup>1</sup> , B. Matos <sup>1</sup> , M. Ribeiro <sup>1</sup> , S. Melo <sup>2</sup> , J. Grilo <sup>2</sup> <sup>1</sup> CENTI-Centre for Nanotechnology and Smart Materials, Portugal <sup>2</sup> Simoldes Plásticos SA, R. Comendador António da Silva Rodrigues 165, Oliveira de Azeméis, Portugal
		17:45-18:00 PROJECT	<b>Flaw tolerance in architected metamaterials</b> P. Pantidis University of Massachusetts, USA
		18:00 -18:15	<b>Laser Powder Bed Fusion and heat treatments: tailoring the microstructure of alloys for biomedical applications</b> E. Santecchia <sup>1,2</sup> , P. Mengucci <sup>2</sup> , A. Gatto <sup>3</sup> , E. Bassoli <sup>3</sup> , L. Denti <sup>3</sup> , G. Barucca <sup>2</sup> <sup>1</sup> Consorzio Interuniversitario Nazionale per la Scienza e Tecnologia dei Materiali (INSTM - UdR Ancona), Italy <sup>2</sup> Dipartimento SIMAU, Università Politecnica delle Marche, Ancona, Italy <sup>3</sup> Dipartimento DIEF, Università di Modena e Reggio Emilia, Modena, Italy

20:00	<b>NANOTECHNOLOGY 2018 BEACH PARTY at the Beach Bar RIVIERA</b> Start of transport from Porto Palace Hotel at 18:00, Start of Return from Beach Bar at 23:00		
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08:00-	<b>Registration</b>		09:00-11:00	<b>Workshop on Biosensors &amp; Bioelectronics 1 (ISFOE18 + NN18 W4) (Room: Timber Hall 2)</b> Chair: F. Biscarini
09:00-11:00	<b>Workshop on OPVs &amp; Perovskite PVs 3 (Room: Crystal Hall)</b> Chair: K. Fostiropoulos, HZB, Germany		09:00- 09:30 KEYNOTE	<b>Implantable devices for drug delivery in the brain</b> G. Malliaras University of Cambridge, UK
09:30-10:00 INVITED	<b>Non-fullerene acceptor-a new material class for highly efficient organic solar cells?</b> M. C. Sharber Linz Institute of Organic Solar Cells, Johannes Kepler University Linz, Linz, Austria		09:30-10:00 INVITED	<b>Organic Neuromorphic Devices</b> P. Gkoupidenis Max Planck Institute for Polymer Research, Germany
10:00-10:15	<b>Assessing charge generation in organic electron acceptor materials using CuSCN-based solar cells</b> Y. Firdaus, T. Anthopoulos King Abdullah University of Science and Technology (KAUST), KAUST Solar Center, Division of Physical Sciences and Engineering, Thuwal 23955-6900, Saudi Arabia		10:00-10:30 INVITED	<b>Organic Electronic for Neuromorphic Computing</b> Y. van de Burgt Technische Universiteit Eindhoven, The Netherlands
10:15-10:30	<b>ITO-free organic solar cells with inkjet-printed PEDOT:PSS electrodes on flexible substrates</b> M. Richet <sup>1,2</sup> , E. Cloutet <sup>2</sup> , L. Vignau <sup>1</sup> <sup>1</sup> Bordeaux INP, Univ. Bordeaux, IMS, CNRS-UMR, France, <sup>2</sup> Univ. Bordeaux, LCPO, CNRS-UMR, France			
10:30- 10:45	<b>Plasmonic Organic Photovoltaics: Unraveling Plasmonic Enhancement for Realistic Cell Geometries</b> I. Vangelidis <sup>1</sup> , A. Theodosi <sup>1</sup> , M. J. Beliatas <sup>2</sup> , K. K. Gandhi <sup>2</sup> , A. Laskarakis <sup>1,3</sup> , P. Patsalas <sup>1,3</sup> , S. Logothetidis <sup>3</sup> , S. R. P. Silva <sup>2</sup> , E. Lidorikis <sup>1</sup> <sup>1</sup> Department of Materials Science and Engineering, University of Ioannina, GR-45110 Ioannina, Greece <sup>2</sup> Advanced Technology Institute, Department of Electrical and Electronic Engineering, University of Surrey, Guildford, Surrey GU27XH, United Kingdom <sup>3</sup> Nanotechnology Lab LTFN, Dept Physics, Aristotle University of Thessaloniki, Greece		10:30-10:45	<b>Emulating Homeoplasticity Phenomena with Organic Electrochemical Devices</b> D. A. Koutsouras Max Planck Institute for Polymer Research, Germany
10:45-11:00	<b>In-Line Real-Time Spectroscopic Ellipsometry for quality control of Roll-to-Roll printed nanomaterials for Organic Photovoltaics</b> A.Zachariadis <sup>1</sup> , C. Kapnopoulos <sup>1</sup> , E. Mekeridis <sup>2</sup> , A. Laskarakis <sup>1</sup> , S. Logothetidis <sup>1</sup> <sup>1</sup> Nanometrology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece <sup>2</sup> Organic Electronic Technologies, Thessaloniki, Greece		10:45-11:00	<b>Glass microresonators doped with silver nanoparticles and quantum dots for biosensing applications</b> M. Suster Centre of New Technologies at the University of Warsaw, Poland

11:00-11:30	<b>Coffee Break</b> <b>ISFOE18 Posters 2-Exhibition - Networking</b>			
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11:30-13:30	<b>Workshop on OPVs 4 (Room : Crystal Hall)</b> Chair: E. Mekeridis, OET, Greece			
11:30-12:00 INVITED	<b>Non-fullerene Acceptors for Organic Photovoltaics</b> G.E. Morse Merck Chemicals Ltd, Chilworth Technical Center, University Parkway, Southampton, SO16 7QD, UK		12 :00-13:30	<b>Workshop on Biosensors &amp; Bioelectronics 2 (ISFOE18 + NN18 W4) (Room: Timber Hall 2)</b> Chair: P. Gkoupidenis, Max Planck Institute for Polymer Research, Germany
12:00-12:15	<b>Boosting the Efficiency of Phthalocyanine-based Organic Photovoltaics</b> M. Popovic <sup>1,2</sup> , S. Davidovich <sup>2</sup> , B. Simic-Glavaski <sup>2,3</sup> <sup>1</sup> University of California, Berkeley, Berkeley, USA <sup>2</sup> Struya Sol Corporation, San Jose, CA 95134, USA <sup>3</sup> Case Western Reserve University, Cleveland, OH 44106, USA		12:00-12:30 INVITED	<b>Controlled Engineering of Bioelectronics Interfaces Using Mixed Organic Monolayers</b> R. Wördenweber Institute for Complex Systems (ICS-8), Germany
12:15-12:30	<b>Efficient p-doping of solution-processed CuSCN hole transport layer using the Lewis acid B(C6F5)<sub>3</sub></b> W.Y. Sit <sup>1</sup> , J. Panidi <sup>1</sup> , T. Anthopoulos <sup>1,2</sup> <sup>1</sup> Dept Physics and Centre for Plastic Electronics, Imperial College London, UK <sup>2</sup> Division of Physical Sciences and Engineering, KAUST, Saudi Arabia		12:30-12:45	<b>Development of "Intelligent" Nanomaterials as Temperature Sensors in Food Packaging Industry: Synthesis, Characterization and Study of Fe(II) Coordination Complexes Exhibiting Spin Crossover Phenomenon (SCO)</b> K. S. Andrikopoulos FORTH/ICE-HT, Greece
12:30-12:45	<b>Tunable Charge-Transfer-Like States in Efficient Hybrid CuSCN-Nanowire based Organic/Inorganic Solar Cells</b> F.D. Eisner <sup>1</sup> , M. Azouzi <sup>1</sup> , W.Y. Sit <sup>1</sup> , Y. Firdaus <sup>2</sup> , A. Seitkhan <sup>2</sup> , T.D. Anthopoulos <sup>1,2</sup> , J. Nelson <sup>1</sup> <sup>1</sup> Department of Physics, Imperial College London, South Kensington, London SW7 2AZ, UK <sup>2</sup> KAUST, Division of Physical Sciences and Engineering, Thuwal, Saudi Arabia		12:45-13.00 YRA Candidate	<b>Functional plasma polymer surfaces in quartz crystal microbalance and surface plasmon resonance immunosensing</b> E. Makhneva

12:45-13:00	<b>Aging study of roll-to-roll organic solar modules with the help of imaging</b> M. A. Llobel <sup>1,2,3</sup> , M. Matheron <sup>2</sup> , C. Arrivé <sup>3</sup> , G. Rivière <sup>3</sup> , S. Courtel <sup>3</sup> , S. Cros <sup>2</sup> <sup>1</sup> Univ. Grenoble Alpes, INES, F-73375, Le Bourget du Lac, France, <sup>2</sup> CEA, LITEN, Department of Solar Technologies, France, <sup>3</sup> ARMOR SAS, 2 rue des Bauches, 44118 La Chevrolière, France		Leibniz Institute for Plasma Science and Technology (INP), Germany
13:00-13:15	<b>Installing Organic Photovoltaics on Greenhouse Roofs: Effects on Plant Growth and on the Operation of the Facility</b> C. Zisis <sup>1</sup> , S. Tsimikl <sup>2</sup> , A. Laskarakis <sup>1</sup> , E. Mekeridis <sup>2</sup> , E. M Pechlivani <sup>2</sup> , C.Gravalidis <sup>1</sup> , M. Chatzidis <sup>1</sup> , V. Matskos <sup>2</sup> and S. Logothetidis <sup>1</sup> <sup>1</sup> Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece <sup>2</sup> Organic Electronic Technologies (OET), Antoni Tritsi 21B, 57001 Thessaloniki, Greece	13:00-13:15	<b>From Single-Nanowire Biosensor to Network of Nanowires for Touch Sensors: A Framework to Reduce Fabrication Cost and Improve Device Functionality</b> M. Sam University of Victoria, Canada
		13:15-13:30	<b>Silicon biosensors examined with surface techniques: molecular arrangement and composition, antibody orientation and binding stoichiometry</b> A. Budkowski Jagiellonian University, Poland
<b>13:30-15:00 Lunch Break</b> <b>ISFOE18 Poster Session 2-Exhibition – Networking -BUSINESS FORUM 3</b>			
15:00-17:30	<b>Workshop on I3D 4 (Room : Crystal Hall)</b> Chair: A. Laskarakis, LTFN, AUTH, Greece	15:00-17:00	<b>Workshop on Biosensors &amp; Bioelectronics 3 (Room : Timber Hall 2)</b> Chair: Y. van de Burgt
15:00-15:30 INVITED	<b>3D Printing of Biomimetic Conjugated Polymers for Wearable Electronics</b> Yue (Jessica) Wang Department of Materials Science and Engineering, University of California, Merced 5200 North Lake Road, Merced, California, USA	15:00-15:30 INVITED	<b>Ultrasensitive detection of neurotransmitters with organic electronics biosensors</b> F. Biscarini <sup>1,2</sup> , M. Di Lauro <sup>3</sup> , M. Berto <sup>1</sup> , M. Giordani <sup>3</sup> , S. Drakopoulou <sup>1,4</sup> , S. Carli <sup>2</sup> , M. Murgia <sup>2,5</sup> , C. A. Bortolotti <sup>1</sup> , F. Zerbetto <sup>6</sup> , M. Zoli <sup>3</sup> , L. Fadiga <sup>2,7</sup> <sup>1</sup> Life Sciences Dept., Università di Modena e Reggio Emilia, Via Campi 103, 41125, Modena (Italy), <sup>2</sup> Istituto Italiano di Tecnologia - Center for Translational Neurophysiology, Via Fossato di Mortara 17-19, 44100 Ferrara (Italy), <sup>3</sup> Dip. Scienze Biomediche, Metaboliche e Neuroscienze, Università di Modena e Reggio Emilia, Via Campi 187, 41125, Modena (Italy), <sup>4</sup> Dept. of Physics, Informatics and Mathematics, Università di Modena e Reggio Emilia, Via Campi 214, 41125, Modena (Italy), <sup>5</sup> CNR-ISMN, Via Gobetti 101, 40129 Bologna (Italy), <sup>6</sup> Dept of Chemistry "G. Ciamician", Alma Mater-Università di Bologna Via Selmi 2, 40127 Bologna (Italy), <sup>7</sup> Dip. Scienze Biomediche e Chirurgico Specialistiche-Sez. Fisiologia Umana, Università di Ferrara, Via Fossato di Mortara 17-19, 44100 Ferrara (Italy).
15:30-16:00 INVITED	<b>Additive manufacturing of micrometer-sized 3D metal objects by FluidFM<sup>®</sup> femtoliter liquid dispensing</b> E. Hepp Cytosurge AG, Sägereistrasse 25, Glattbrugg, Switzerland	15:30-15:45	<b>Delivering Single Particles into Living Cells by Plasmonic Hollow Nanoelectrodes</b> J. Huang Italian Institute of Technology, Italy
		15:45-16:00	<b>Gold Nanoparticle/Poly Ionic Liquid Based Electrodes for Electrochemical Detection of Triclosan in Natural Water Samples</b> R.T. Priscila Universidade de Brasília, Brazil
16:00-16:30 INVITED	<b>Roll-to-Roll pilot line for large-scale manufacturing of microfluidic devices</b> J. Hesse <sup>1</sup> , P. Hütter <sup>1</sup> , M. Smolka <sup>1</sup> , P. Toren <sup>1</sup> , A. Haase <sup>1</sup> , U. Palfinger <sup>1</sup> , D. Nees <sup>1</sup> , S. Ruttoff <sup>1</sup> , C. Schaud <sup>1</sup> , C. Leiner <sup>1</sup> , L. Kuna <sup>1</sup> , J. Hesse <sup>1</sup> , B. Stadlober <sup>1</sup> , U. Giese <sup>2</sup> , T. Maier <sup>2</sup> , E. Melnik <sup>2</sup> , M. Sonnleitner <sup>3</sup> , B. Hierschläger <sup>3</sup> , I. Katzmayer <sup>3</sup> , A. Bauer <sup>4</sup> , M. Thesen <sup>5</sup> , M. Lohse <sup>5</sup> <sup>1</sup> MATERIALS Institute, JOANNEUM RESEARCH FmbH, Weiz, Austria, <sup>2</sup> Center for Health & Bioresources, Austrian Institute of Technology GmbH, Wien, Austria, <sup>3</sup> GEN SPEED Biotech GmbH, Rainbach, Austria, <sup>4</sup> mb technologies, Fürstenfeld, Austria, <sup>5</sup> micro resist technology GmbH, Berlin, Germany	16:00-16:15	<b>Fabrication of innovative plasmonic paper-based nanosensors for label-free biodetection.</b> M. Focsan Babes-Bolyai University, Romania
		16:15-16:30	<b>High-sensitive electrochemical immunosensor for detection of salivary cotinine</b> Kyungyeon Lee Yonsei University, Seoul
16:30-17:00 INVITED	<b>Fast 3D printing of very large automotive parts: present and future</b> P. Perlo Interactive Fully Electrical Vehicles, I-FEVs, Italy		
17:00-17:15	<b>Toward slot-die coating of flexible and large-area organic-light emitting diodes in ambient conditions</b> K.Stavrou <sup>1</sup> , M. Gioti <sup>1</sup> , C.Koutsiaki <sup>1</sup> , C.Kamaraki <sup>1</sup> , E.Koutsounanos <sup>1</sup> , D. Kokkinos <sup>2</sup> , S. Logothetidis <sup>1</sup> <sup>1</sup> Lab for Thin Films - Nanobiomaterials - Nanosystems & Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece <sup>2</sup> Organic Electronic Technologies, Antoni Tritsi 21b, Thessaloniki, Greece		

<b>17:15-17:30</b> <b>EU PROJECT</b>	<b>Real-time melt pool monitoring for process control in additive manufacturing</b> <b>C. Theoharatos, D. Besyris, V. Vassalos, V. Tsagaris</b> <i>Computer Vision Systems, IRIDA Labs S.A., Patras Innovation Hub, Kato-Ano Kastritsiou 4, Patras, Greece</i>		
<b>17:30-18:30</b>	<b>Young Researcher Award for Best Oral and Best Poster Presentations</b> <b>Closing Remarks and Discussion</b> <b>End of ISFOE18</b>		

POSTERS

<b>POSTER SESSION</b> <b>Monday 2 July, Wednesday 4 July, Thursday 5 July: Poster Display</b> <b>Tuesday 3 July: Poster Display &amp; Presentations</b> <b>Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs</b>	
P1-1	<b>Influence of Oxygen and Chlorine on the Electrical Performance of Nanoparticulate ZnO Field-Effect Transistors</b> H. von Seggern, Paul Mundt <i>Technische Universität Darmstadt, Group of Electronic Materials, Inst. of Materials Science, Alarich-Weiss-Strasse 2, Germany</i>
P1-2	<b>Electrical characterization of [1]benzothieno[3,2-b]benzothiophene-based derivatives with different side chains</b> M. Novota <sup>1</sup> , M. Weis <sup>1</sup> , P. Tisovský <sup>2</sup> , A. Gaplovský <sup>2</sup> , P. Juhasz <sup>1</sup> , M. Micjan <sup>1</sup> , M. Pavuk <sup>3</sup> <sup>1</sup> <i>Institute of Electronics and Photonics, Slovak University of Technology, Ilkovicova 3, 81219 Bratislava, Slovakia</i> <sup>2</sup> <i>Institute of Chemistry, Faculty of Natural Sciences, Comenius University in Bratislava, Ilkovicova 6, 84215 Bratislava, Slovakia</i> <sup>3</sup> <i>Institute of Nuclear and Physical Engineering, Slovak University of Technology, Ilkovicova 3, 81219 Bratislava, Slovakia</i>
P1-3	<b>Ionic radius estimated from energy second derivative with respect to electric field and electron number for third-period transition metals</b> Woźniak A. <sup>1,3</sup> , Witkowski M. <sup>*1,2</sup> , Szarek P. <sup>1</sup> <sup>1</sup> <i>Centre of New Technologies, University of Warsaw, Żwirki i Wigury 93, 02089, Warsaw, Poland</i> <sup>2</sup> <i>Faculty of Physics, University of Warsaw, L. Pasteura 5, 02093 Warsaw, Poland</i> <sup>3</sup> <i>Faculty of Chemistry, University of Warsaw, L. Pasteura 1, 02093 Warsaw, Poland</i>
P1-4	<b>The impact of La3+, Eu3+, Gd3+ doping on structural, optical and electrical properties of multiferroic BiFeO3 obtained by sol-gel auto-combustion synthesis</b> Wrzesińska A.* <sup>1</sup> , Khort A.A. <sup>2</sup> , Bobowska I.1, Wypych-Puszkarczyk A.1, Ulański J.1 <sup>1</sup> <i>Department of Molecular Physics, Faculty of Chemistry, Lodz University of Technology, Zeromskiego 116, 90-924 Lodz, Poland</i> <sup>2</sup> <i>A.V. Luikov Heat and Mass Transfer Institute of The National Academy of Sciences of Belarus, Minsk 220072, Belarus</i>
P1-5	<b>Anodic Deposition of Enantiopure Hexahelicene Layers</b> J. Vacek <sup>1</sup> , J. Hrbáč <sup>2</sup> , T. Strašák <sup>3</sup> , V. Církva <sup>3</sup> , J. Sýkora <sup>3</sup> , J. Crassous <sup>4</sup> , J. Žádný <sup>3</sup> , J. Storch <sup>3</sup> <sup>1</sup> <i>Department of Medical Chemistry and Biochemistry, Faculty of Medicine and Dentistry, Palacký University, Hněvotínská 3, 775 15 Olomouc, Czech Republic</i> <sup>2</sup> <i>Institute of Chemistry, Masaryk University, Kamenice 5, 725 00 Brno, Czech Republic</i> <sup>3</sup> <i>Institute of Chemical Process Fundamentals of the Czech Academy of Sciences, Rozvojová 135, 165 02 Prague 6, Czech Republic</i> <sup>4</sup> <i>Institut des Sciences Chimiques de Rennes UMR 6226, CNRS Université de Rennes 1, Campus de Beaulieu, Rennes Cedex, France</i>
P1-6	<b>Lanthanum Hexaboride (LaB6) – A Highly Efficient NIR-Absorber/Nanoheater</b> R. Ngoumeni <sup>1</sup> , V. Yavuz <sup>2</sup> , K. Peter <sup>2</sup> , P. Sindlhauser <sup>1</sup> , M. Möller <sup>2,3</sup> <sup>1</sup> <i>Sindlhauser Materials GmbH, Daimlerstr. 68, Kempten, Germany</i> <sup>2</sup> <i>DWI – Leibniz-Institute for Interactive Materials, Forckenbeckstr. 50, Aachen, Germany</i> <sup>3</sup> <i>ITMC – Institute of Technical and Macromolecular Chemistry, Worringerweg 1, Aachen, Germany</i>
P1-7	<b>Fabrication of perovskite solar cells and modules via Hybrid Chemical Vapor Deposition</b> T. Bouloumis, L. Qiu, Y. Qi <i>Energy Materials and Surface Sciences Unit (EMSSU), Okinawa Institute of Science and Technology Graduate University (OIST), Kunigami-gun, Okinawa, Japan 904-0495</i>
P1-8	<b>TCO-free Perovskite planar-heterojunction solar cells</b> Bansal N, Dimopoulos T. <i>AIT Austrian Institute of Technology, Energy Department, Photovoltaic Systems, Giefinggasse 2, 1210, Vienna, Austria</i>
P1-9	<b>Charge Carrier Dynamics in Perovskite Solar Cells Probed by Femtosecond Transient Absorption Spectroscopy</b> E. Serpetzoglou <sup>1,3</sup> , I. Konidakis <sup>1</sup> , T. Maksudov <sup>2,4</sup> , A. Panagiotopoulos <sup>2,4</sup> , G. Kakavelakis <sup>2,4</sup> , E. Kymakis <sup>2</sup> , E. Stratakis <sup>1,4</sup> <sup>1</sup> <i>Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), 71110, Heraklion, Crete, Greece</i> <sup>2</sup> <i>Center of Materials Technology and Photonics, Electrical Engineering Department, Technological Educational Institute (TEI) of Crete, 71004, Heraklion, Crete, Greece</i> <sup>3</sup> <i>Physics Department, University of Crete, GR 71003 Heraklion, Crete, Greece</i> <sup>4</sup> <i>Department of Materials Science and Technology, University of Crete, Greece, 71003, Heraklion, Crete, Greece</i>
P1-10	<b>Characterization of PTB7-Fx:PC70BM bulk heterojunction solar cells prepared in ambient environment by impedance spectroscopy</b> R. Gergova <sup>1</sup> , M. Sendova-Vassileva <sup>1</sup> , G. Popkirov <sup>1</sup> , G. Grancharov <sup>2</sup> , V. Gancheva <sup>2</sup> <sup>1</sup> <i>Central Laboratory of Solar Energy and New Energy Sources, Bulgarian Academy of Sciences 72 Tzarigradsko Chaussee, 1784 Sofia, Bulgaria</i>
P1-11	<b>The influence of PC60BM layer on device performance in printed perovskite solar cells</b> C.Kamaraki <sup>1</sup> , A.Zachariadis <sup>1</sup> , A.Galatsopoulos <sup>1</sup> , C.Koutsiaqi <sup>1</sup> , K.Stavrou <sup>1</sup> , C.Kapnopoulos <sup>1</sup> , E.Mekeredis <sup>2</sup> , S.Kassavetis <sup>1</sup> , C.Gravalidis <sup>1</sup> , A.Laskarakis <sup>1</sup> , S.Logothetidis <sup>1</sup> <sup>1</sup> <i>Lab for Thin Films - Nanobiomaterials - Nanosystems &amp; Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece</i> <sup>2</sup> <i>Organic Electronic Technologies, Antoni Tripsi 21b, Thessaloniki, Greece</i>
P1-12	<b>Simply random nano rod as a scattering layer to improve viewing angle and light extraction for organic light-emitting diodes</b> Jin Ho Kwack <sup>1,2</sup> , Cheol Hwee Park <sup>1</sup> , Jun Hee Choi <sup>1</sup> , Young Wook Park <sup>3*</sup> and Byeong-Kwon Ju <sup>1*</sup> <sup>1</sup> <i>Display and Nanosystem Laboratory, College of Engineering, Korea University Seoul 136-713, Republic of Korea</i> <sup>2</sup> <i>Samsung Display Co., Samsung St. 181, Tangjeong-Myeon, Asan-City, Chungcheongnam-do, 31454, Republic of Korea</i> <sup>3</sup> <i>School of Mechanical and ICT Convergence Engineering, SUN MOON University, Chungcheongnam-do 31460, Republic of Korea</i>
P1-13	<b>New light emitting polymer for OLED application</b> Zielonka K.1, Wiosna-Salyga G.1, Glowacki I.1, Ulański J.1, Orwat B.2, Jankowska K.2, Kownacki I.2 <sup>1</sup> <i>Department of Molecular Physics, Lodz University of Technology, 90-924 Lodz, Zeromskiego 116, Poland</i> <sup>2</sup> <i>Faculty of Chemistry, Adam Mickiewicz University, 61-614 Poznan, Umultowska 89b, Poland</i>
P1-14	<b>Electrical properties and efficiency of organic light-emitting diodes with integrated nanostructures</b> J. Buhl, M. Bremer, M. Köpke, M. Gerken <i>Faculty of Engineering, Kiel University, Kaiserstraße 2, 24143 Kiel, Germany</i>
P1-15	<b>Fabrication of progressive PhC structures for OLED by using Nanoimprint lithography</b> J.Nevrela, J. Skriniarova J. Kovac <sup>1</sup> <i>Department of electronics and photonics, Slovak University of Technology in Bratislava, Ilkovičová 3,812 19 Bratislava, Slovakia</i>
P1-16	<b>ITO-Free Flexible Electrochromic Device using Vapor Phase Polymerized PEDOT Electrode</b> Kwanho. Jeong <sup>1</sup> , Yeonkwon. kim <sup>2</sup> , Sangil. Choi <sup>3</sup> , Sunghyuck. Woo <sup>4</sup> Younghun. Sim <sup>5</sup> Sungsoo. Kim <sup>†</sup> <sup>1</sup> <i>Department of Nano-Polymer Materials Engineering, Pai Chai University, 35345 155-40, Baejae-ro Seo-gu Daejeon, Korea</i>
P1-17	<b>Development of a sensor for hydrocarbon pollution detection in marine environment</b> A. Rocchi <sup>1</sup> , E. Santecchia <sup>1,2</sup> , F. Ciciulla <sup>1</sup> , G. Barucca <sup>1</sup> <sup>1</sup> <i>Dipartimento SIMAU, Università Politecnica delle Marche, via Brecce Bianche 12, 60131 Ancona, Italy</i> <sup>2</sup> <i>Consorzio Interuniversitario per la Scienza e Tecnologia dei Materiali (INSTM-UdR Ancona), Italy</i>
P1-18	<b>Organosilicon derivatives of BTBT for monolayer organic field effect transistors</b> O.V. Borschchev, E.V. Agina, M.S. Polinskaya, A.A. Trul, A.S. Sizov, S.A. Ponomarenko <i>Enkolopov Institute of Synthetic Polymeric Materials of the Russian Academy of Sciences, Profsoyuznaya st. 70, Moscow 117393, Russian Federation</i>
P1-19	<b>Engineering through blending: Controlling Defects in Organic Diodes by Using Light-Emitting Nanoparticles</b> Anielen Halda Ribeiro*, Xingjuan Zhao, Markus Bannwarth, Katharina Landfester, Paul W. M. Blom, Jasper J. Michels

	<i>Max Planck Institute for Polymer Research Department of Molecular Electronics, Ackermannweg 10, 55128 Germany</i>
P1-20	<b>Electrode material impact on contact resistance of organic field-effect transistors</b> M. Micjan, P. Juhasz, M. Novota, M. Weis <i>Institute of Electronics and Photonics, Slovak University of Technology, Ilkovicova 3, 81219 Bratislava, Slovakia</i>
P1-21	<b>Electrical performance of flexible OTFTs based on slot-die printed dielectric films with different thicknesses</b> C. Koutsiaqi, T. Kaimakamis, A. Zachariadis, C. Kamaraki, K. Stavrou, E. Stylianidis, S. Logothetidis <i>Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, Greece</i>
P1-22	<b>Stops in textile small angle microfluidics</b> E. Almestål, A. Björkquist, N-K. Persson <i>Swedish School of Textiles, Smart Textiles, University of Borås, SE 501 90 Borås, Sweden</i>
P1-23	<b>Human breath monitoring by flexible polyurethane sensor with integrated carbon nanotube layer</b> Romana Danova <sup>1</sup> , Robert Olejnik <sup>2</sup> , Petr Slobodian <sup>3</sup> , Jiri Matyas <sup>4</sup> and Nuri Karakurt <sup>5</sup> <i>Centre of Polymer Systems, University Institute, Tomas Bata University in Zlin, 760 01 Zlin, Czech Republic</i>
P1-24	<b>Flexible supercapacitor: 3D patterning of reduced graphene oxide on textile substrate</b> V. Babaahmadi <sup>1</sup> , M. Montazeri <sup>1</sup> , W. Gao <sup>2</sup> <sup>1</sup> <i>Textile Department, Functional Fibrous Structures &amp; Environmental Enhancement (FFSEE), Amirkabir University of Technology, Tehran, Iran (v.babaahmadi@aut.a.ir)</i> <sup>2</sup> <i>Textile Engineering, Chemistry and Science Department, North Carolina State University, Raleigh, NC, USA</i>
P1-25	<b>Investigation of the optical properties of OVPD and VTE deposited thin films for Organic Photovoltaics (OPVs)</b> V. Foris, A. Papamichail, A. Zachariadis, A. Laskarakis, A. Logothetidis <i>Nanotechnology Lab LTFN (Lab for Thin Films - Nanobiomaterials - Nanosystems - Nanometrology) Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</i>
P1-26	<b>First-Principles DFT study on the adsorption of PC<sub>60</sub>BM on Ag surface</b> A. Stamateri, S. Logothetidis <i>Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, Greece</i>
P1-27	<b>Comparable study on the properties of PBDB-T and ITIC thin films</b> Z. Kyroudis <sup>1</sup> , A. Zachariadis <sup>1</sup> , C. Kapnopoulos <sup>1</sup> , C. Kamaraki <sup>1</sup> , K. Stavrou <sup>1</sup> , E. Mekeridis <sup>2</sup> , C. Gravalidis <sup>1</sup> , A. Laskarakis <sup>1</sup> , S. Logothetidis <sup>1</sup> <sup>1</sup> <i>Lab for Thin Films, Nanosystems &amp; Nanometrology (LTFN), Department of Physics Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</i> <sup>2</sup> <i>Organic Electronic Technologies, Antoni Tristi 21b, Thessaloniki, Greece</i>
	<b>COMMON POSTER SESSION</b> <b>Tuesday 3 July, Thursday 5 July: Poster Display</b> <b>Wednesday 4 July: Poster Display &amp; Presentations</b> <b>I3D (common with NN18 W5)</b>
P6-01	<b>Additive manufacturing of micrometer-sized 3D metal objects by FluidFM® femtoliter liquid dispensing</b> E. Hepp <i>Cytosurge AG, Sägereistrasse 25, Glattbrugg, Switzerland</i>
P6-02	<b>Evaluation of the cell response to the environmental stress by FTIR spectroscopy</b> M. Grube <i>University of Latvia, Riga, Latvia</i>
P6-03	<b>Direct printing of liquid metal pastes for stretchable electronics</b> J. Oh <i>Electronics and Telecommunications Research Institute, Korea</i>
P6-04	<b>3D printed supercapacitors from 2D material inks</b> C. Grotta, P. Sherrell, P. Palczynski, M. Sokolikova, A. Panagiotopoulos, C. Mattevi <i>Department of Materials, Imperial College London, Royal School of Mines, Exhibition Road, SW7 2AZ London, United Kingdom</i>
P6-05	<b>A Roll-to-Roll Fabrication Method for Capacitive Air-gap Touch Sensor</b> S. Hoon Lee <sup>1</sup> , D. Geun Lee <sup>1</sup> , S. Lee <sup>2</sup> <sup>1</sup> <i>Department of Mechanical Design and Production Eng., Konkuk University, Seoul, 05029, Korea</i> <sup>2</sup> <i>School of Mechanical Engineering, Konkuk University, Seoul, 05029, Korea</i>
P6-06	<b>Sensor arrays fabricated by laser-induced forward transfer</b> Maria Dinescu <i>National Institute for Lasers, Plasma, and Radiation Physics, Romania</i>
P6-07	<b>Cloud based 3D Printing to Facilitate Open Design and Manufacturing</b> N. Gwangwava <sup>1</sup> , A. U. Ude <sup>1</sup> , E. Ogunmuyiwa <sup>1</sup> , R. Addo-Tenkorang <sup>2</sup> <sup>1</sup> <i>Botswana International University of Science and Technology, Private Mail Bag 16, Botswana</i> <sup>2</sup> <i>Aalborg Universitet, Department of Materials and Production, 9220 Aalborg, Denmark</i>
	<b>COMMON POSTER SESSION</b> <b>Tuesday 3 July, Thursday 5 July: Poster Display</b> <b>Wednesday 4 July: Poster Display &amp; Presentations</b> <b>Graphene and Related Materials (common with NN18 W5)</b>
P5-1	<b>Investigations of a GBHT Transistor based on N-Doped Amorphous Silicon-Graphene Layers</b> C. Strobel <sup>1</sup> , C.A. Chavarin <sup>2</sup> , J. Kitzmann <sup>2</sup> , M. Knaut <sup>1</sup> , C. Wenger <sup>2</sup> , M. Albert <sup>1</sup> , J.W. Bartha <sup>1</sup> <sup>1</sup> <i>Technische Universität Dresden, Semiconductor and Microsystems Technology Laboratory, 01062 Dresden, Germany, Matthias.albert@tu-dresden.de</i> <sup>2</sup> <i>IHP, Leibniz-Institut für innovative Mikroelektronik, Im Technologiepark 25, 15236 Frankfurt (Oder), Germany</i>
P5-2	<b>Novel hybrid materials constructed from TiO<sub>2</sub> nanocrystals and graphene oxide: Synthesis and characterization</b> A. Vagena*, D. Sevastos, E. Dalas and A. Koliadima <i>Department of Chemistry, University of Patras, GR-26504 Patras, Greece</i>
P5-3	<b>Wide-Band Nano-Imaging of Plasmon Dispersion and Hotspots in Quasi-Free-Standing Epitaxial Graphene</b> W. S. Hart <i>Imperial College London, UK</i>
P5-4	<b>Mechanical Properties of Novamene Structures: A molecular dynamics investigation</b> Eliezer F. Oliveira <sup>1</sup> , Pedro A. S. Autreto <sup>2</sup> , Douglas S. Galvao <sup>1</sup> <sup>1</sup> <i>Gleb Wataghin Institute of Physics, University of Campinas (UNICAMP), R. Sérgio Buarque de Holanda, no. 777, 13083-859, Campinas, SP, Brazil</i> <sup>2</sup> <i>Center of Natural Human Science, Federal University of ABC (UFABC), Av. dos Estados, no. 5001, 09210-580, Santo Andre, SP, Brazil</i>
P5-5	<b>3D nanotubes network synthesized inside beta zeolites templates: A molecular dynamics investigation</b> Eliezer F. Oliveira <sup>1</sup> , Leonardo D. Machado <sup>2</sup> , Douglas S. Galvao <sup>1</sup> <sup>1</sup> <i>Gleb Wataghin Institute of Physics, University of Campinas (UNICAMP), R. Sérgio Buarque de Holanda, no. 777, 13083-859, Campinas, SP, Brazil</i> <sup>2</sup> <i>Department of Physics, Federal University of Rio Grande do Norte (UFRN), Av. Hermes Fonseca, s/n, 59084-100, Natal, RN, Brazil</i>

P5-6 YRA Candidate	<b>Transfer and characterization of graphene grown by CVD on seeded copper foils</b> Cristina Varone <sup>1</sup> , Vaidotas Miseikis <sup>2</sup> , Camilla Coletti <sup>2</sup> and Guido C.A.M. Janssen <sup>1</sup> <sup>1</sup> Department of Precision and Microsystems Engineering, Delft University of Technology <sup>2</sup> Center for Nanotechnology Innovation @ NEST, Istituto Italiano di Tecnologia
P5-7	<b>Graphene aerogels as binder-less anode electrodes for high performance lithium-ion batteries</b> Pinelopi Angelopoulou <sup>1,2</sup> , Katerina Vrettos <sup>1</sup> , Vasilios Georgakilas <sup>1</sup> and George Avgouropoulos <sup>1*</sup> <sup>1</sup> Department of Materials Science, University of Patras, GR26504, Patras, Greece <sup>2</sup> Foundation for Research and Technology-Hellas (FORTH), Institute of Chemical Engineering, Sciences (ICE-HT), P.O. Box 1414, GR-26504 Patras, Greece,
P5-8	<b>Investigation of the Adherence and Proliferation Characteristics of SH-SY5Y Neuron Model Cells on 3D Graphene Foam Surfaces</b> Z. Morçimen <sup>1</sup> , Ş. Taşdemir <sup>1</sup> , Ç. Erdem <sup>3</sup> , F. Güneş <sup>4</sup> , A. Şendimir Ürkmez <sup>1,2</sup> <sup>1</sup> Bioengineering Department, Ege University, Izmir, Turkey <sup>2</sup> Department of Biomedical Technologies, Ege University, Izmir, Turkey <sup>3</sup> Department of Nanoscience and Nanotechnology, İzmir Katip Çelebi University, Izmir, Turkey <sup>4</sup> Department of Materials Science and Engineering, İzmir Katip Çelebi University, Izmir, Turkey
P5-9	<b>Wastewater Treatment with Graphene, MWCNT's, Zeolite, Perlite and Tuff as a Sorbents of Heavy Metals</b> A.T.Dimitrov, M. Stamenkovski, A. Petrovski Faculty of Technology and Metallurgy, University SS Cyril and Methodius, Rudjer Boskovic 16, 1000 Skopje, FYR Macedonia
P5-10	<b>Graphene based resistive flexible strain sensors and their theoretical limitations</b> V. Tsouti, G. Papadimitropoulos, S. Chatzandroulis Institute of Nanoscience and Nanotechnology, National Center for Scientific Research "Demokritos" Athens, Greece
P5-11	<b>Surface-enhanced Raman spectroscopy of graphene integrated in plasmonic silicon platforms with a three-dimensional nanotopography</b> Alva Dagkli <sup>1</sup> , E. Lidorikis <sup>1</sup> , M. Kanidi <sup>2</sup> , M. Kanidi <sup>2</sup> , M. Kandyala <sup>2</sup> , A. Colli <sup>6</sup> , N. Kelaidis <sup>3</sup> , D. Palles <sup>2</sup> , S.A. Giamini <sup>3,4</sup> , J. Marquez <sup>3,5</sup> , A. Dimoulas <sup>3</sup> , E.I. Kamitsos <sup>2</sup> <sup>1</sup> Department of Materials Science and Engineering, University of Ioannina, 45110 Ioannina, Greece <sup>2</sup> Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, 48 Vasileos Constantinou Avenue, 11635 Athens, Greece <sup>3</sup> Institute of Nanoscience and Nanotechnology, National Center for Scientific Research 'Demokritos', 15310 Athens, Greece <sup>4</sup> Department of Physics, University of Athens, Zografou University Campus, 15784 Athens, Greece <sup>5</sup> Department of Physics, National Technical University of Athens, 9 Iroon Polytechniou st., 15780 Athens, Greece <sup>6</sup> Cambridge Graphene Centre, University of Cambridge, Cambridge CB3 0FA, UK
P5-12	<b>Comparison of optical properties of MBE grown MoSe<sub>2</sub> and (Mo,Mn)Se<sub>2</sub></b> J. Kucharek, W. Pacuski Institute of Experimental Physics, Faculty of Physics, University of Warsaw, Pasteura 5, PL-02-093 Warszawa, Poland
P5-13	<b>Immobilizing Graphene Oxide on Soybean Protein Textile Fabric by LBL: Synthesis, Characterization and Electrochemistry Evaluation</b> J.H.O. Nascimento Federal University of Rio Grande do Norte, Brazil
P5-14	<b>Effect of graphene nanoplatelets on the structure and thermal stability of PE-RT nanocomposites</b> D. Kourtidou <sup>1</sup> , E. Tarani <sup>1</sup> , D. N. Bikiaris <sup>2</sup> , K. Chrissafis <sup>1</sup> , G. Vourlias <sup>1</sup> <sup>1</sup> X-ray, Optical Characterization and Thermal Analysis Laboratory, Physics Department, Aristotle University of Thessaloniki, Greece <sup>2</sup> Laboratory of Polymer Chemistry and Technology, Department of Chemistry, Aristotle University of Thessaloniki, Greece