

9th International Symposium on Flexible Organic Electronics (ISFOE16), 4-7 July 2016, Thessaloniki, Greece

PROGRAM

Monday 4 July 2016

08:00 -	Registration
09:00-09:30	Welcome and Opening Remarks S. Logothetidis, ISFOE16 Chairman
09:30-11:00	Workshop on OLAE Materials 1 – Supported by SMARTONICS (Crystal Hall) Chair: J. K. Kallitsis, University of Patras, Greece
09:30-10:00 KEYNOTE	The Design of High Efficiency Solar Cells and Collectors R.P. Silva <i>University of Surrey, Surrey, UK</i>
10:00-10:15	Comparison of High-K Dielectrics Using Facile Solution Processing Techniques A.D. Mottram, T.D. Anthopoulos <i>Department of Physics and Centre for Plastic Electronics, Imperial College London, United Kingdom</i>
10:15-10:30	Simple and fast determination of crystal orientation in organic thin films by differential interference contrast P. Fesenko ¹ , R. Janneck ^{1,2} , S. Prakash Bommanaboyena ¹ , H. Gaethje ³ , P. Heremans ^{1,2} , C. Rolin ¹ , J. Genoe ^{1,2} ¹ IMEC, Large Area Electronics, Leuven, Belgium, ² KU Leuven, ESAT, Leuven, Belgium, ³ OLYMPUS Europa, Hamburg, Germany
10:30-10:45	Roll-to-Roll manufacturing of Organic Photovoltaics in pilot line with laser patterning and optical metrology for quality control S. Logothetidis ¹ , C. Kapnopoulos ¹ , E. Mekeridis ² , A. Zachariadis ¹ , V. Matskos ² and A. Laskarakis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece, ² Organic Electronic Technologies (OET), Antoni Tritsi 21B, 57001 Thessaloniki, Greece
10:45-11:00	Novel ternary blend of PCDTBT, PCPDTBT and PC70BM for the fabrication of bulk heterojunction organic solar cells T.Pratyusha ¹ , G. Sivakumar ^{1,2} , D. Gupta ¹ , A. Yella ¹ ¹ Metallurgical engineering and material science, IIT, Mumbai, India, ² Chemical engineering, Monash University, Clayton, VIC, Australia

11:00 – 11:30 Coffee Break - Posters – Exhibition - Networking

11:30-13:45	Workshop on OLAE Materials 2 – Supported by SMARTONICS (Crystal Hall) Chair: R. P. Silva, University of Surrey, UK
11:30-12:00 KEYNOTE	Dielectric Materials for Printable Soft Electronics Myung-Han Yoon <i>School of Materials Science and Engineering, Gwangju Institute of Science and Technology, Korea</i>
12:00-12:20 INVITED	Tailoring fullerene derivatives for organic photovoltaics M.A. Lebedeva, K. Porfyrakis <i>Department of Materials, University of Oxford, UK</i>
12:20-12:40 INVITED	High Barrier Films for Flexible Photovoltaic Applications E. Küçükpinar ¹ , S. Amberg-Schwab ² , J. Fahlteich ³ , C. Boeffel ⁴ , S. Kiese ¹ , F. Ruess ¹ , O. Miesbauer ¹ , K. Noller ¹ ¹ Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, Germany, ² Fraunhofer Institute for Silicate Research ISC, Würzburg, Germany, ³ Fraunhofer Institute for Electron Beam and Plasma Technology FEP, Dresden, Germany, ⁴ Fraunhofer Institute for Applied Polymer Research IAP, Potsdam, Germany
12:40-13:00 INVITED	Controlled Structure Formation of Semiconducting Polymer Films for Organic Electronic Devices S. Ludwigs <i>Institute of Polymer Chemistry, University of Stuttgart, Stuttgart, Germany</i>
13:00-13:15	Optimization of the synthesis of polymeric electron donors based on PCDTBT derivatives A. K. Andreopoulou ^{1,2} , C. Anastasopoulos ¹ , G. Nikolopoulos ¹ , J. K. Kallitsis ^{1,2} ¹ Department of Chemistry, University of Patras, 26504 Patras, Greece, ² FORTH/ICE-HT, P.O. Box 1414, 26504 Patras, Greece
13:15-13:30 PROJECT	EU Project MUJULIMA Y. Galagan ¹ , M. Matheron ² , S. Cros ² ¹ TNO / Holst Centre, High Tech Campus, Eindhoven, Netherlands, ² Univ. Grenoble Alpes, INES, CEA/LITEN, Department of Solar Technologies, France
13:30-13:45	Selective structuring of ultra-thin multi-layer stacks for organic solar modules J. Fragoso, F. Nickel, D. Bahro, K. Glaser, J. Czolk, D. Landerer, T. Friedrich, A. Colsmann <i>Light Technology Institute, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany</i>

13:45 – 15:00 LUNCH BREAK – POSTERS – EXHIBITION – NETWORKING

15:00-17:30		Workshop on Computational Modelling 1 – Supported by SMARTONICS (Crystal Hall) Chair: S. Ludwigs University of Stuttgart, Germany		
15:00-15:30 KEYNOTE	Computational design and experimental synthesis of novel halide perovskites F. Giustino <i>Department of Materials, University of Oxford, UK</i>	15:30-17:45	OTFTs 1 (Timber Hall 1) Chair: M. McLachlan, Imperial College London, UK	15:30-17:30 Workshop (Timber Hall 2)
15:30-16:00 INVITED	Modeling and design of novel plasmonic optoelectronic devices E. Lidorikis <i>Department of Materials Science & Engineering, University of Ioannina, Ioannina 45110, Greece</i>	15:30-16:00 INVITED	3rd Generation organic blend semiconductors for thin-film transistor applications T. Anthopoulos <i>Department of Physics, Imperial College London, UK</i>	Workshop on Roadmapping Materials needs & Technologies for a strong European Industry Chair: Bertrand Fillon, CEA, France
16:00-16:30 INVITED	Modelling of Organic Solar Cell: Finite Element Simulation and Compact Model Y. Bonnassieux, J.W. Jin, S. Jung, G. Horowitz <i>LPICM, CNRS, Ecole Polytechnique, Université Paris Saclay 91128, Palaiseau, France</i>	16:00-16:30 INVITED	Photopatternable dielectrics for low voltage digital and analog organic circuits used for addressing of large area flexible ferroelectric sensors A. Petritz, A. Fian, M. Torres-Miranda, G. Scheipl, E. Karner, C. Prietl, A. Tschopp, M. Zirkl, B. Stadlober <i>Materials-Institute for Surface Technologies and Photonics, Joanneum Research, Weiz, Austria</i>	
16:30-16:45 PROJECT	Mesoscale Modelling of Doped Organic Semiconductors A.B. Walker <i>University of Bath, UK</i>	16:30-16:45 PROJECT	Printed pressure sensor matrix with organic field-effect transistors for artificial skin applications V. Ermolov, Tomi Hassinen, Kim Eiroma, Tapio Mäkelä <i>VTT Technical Research Centre of Finland, Tietotie 3, FI-02150 Espoo, Finland</i>	
16:45-17:00	Electromagnetic Modeling of Plasmonic Organic Photovoltaics I. Vagelidis, E. Lidorikis <i>Department of Material Science and Engineering, University of Ioannina Ioannina 45110, Greece</i>			
17:00-17:15	Essential effect of microscopic Coulomb interactions of charge carriers on concentration dependence of mobility in disordered organic materials A. Yu. Saunina, V. R. Nikitenko <i>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia</i>	16:45-17:00	Unique Experimental Evidence that Short-range Intermolecular Aggregation is Sufficient for Efficient Charge Transport in Conjugated Polymers S. Wang, S. Fabiano, M. Berggren <i>Department of Science and Technology, Linköping University, Norrköping, Sweden</i>	
17:15-17:30	First-principles investigation of the interface between prototype organic semiconductors and the Ag (111) surface A. Stamateri, G. Volonakis, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>	17:00-17:15	Design and development of high performance organic circuits using a self-aligned gate process R. Wanjau, M. Raja <i>Department of Electrical Engineering and Electronics, University of Liverpool, UK</i>	
		17:15-17:30	Improved charge transport in ultrathin semiconducting films via polymer aggregation L. Janasz ¹ , M. Gradzka ² , D. Chelbosz ² , A. Kiersnowski ² , W. Pisula ³ , K. Müllen ³ , J. Ulanski ¹ ¹ Department of Molecular Physics, Lodz University of Technology, Lodz, Poland ² Polymer Engineering & Technology Division, Wroclaw University of Technology, Poland ³ Max Planck Institute for Polymer Research, Mainz, Germany	
		17:30-17:45	Spray-printed organic field-effect transistors based on small molecule semiconductor with insulating polymers T. Kaimakamis, A. Papamichail, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>	

17:30 – 20:00 **Coffee Break Poster Presentations ISFOE16 1**

20:00 **DINNER FOR ISFOE16 KEYNOTE AND INVITED SPEAKERS**
GREEK TAVERN “NHSAKI”

Tuesday 5 July 2016

08:00	Registration
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09:00-11:00	Workshop on OLAE Materials 3 (Timber Hall 1) Chair: T. Anthopoulos, Imperial College London, UK	09:00-11:00	Workshop on Manufacturing & Laser Technologies 1 – Supported by SMARTONICS (Timber Hall 2) Chair: K. Porfyrakis, University of Oxford, UK
09:00-09:20 INVITED	Processing routes for charge selective interlayers in organic electronics M. McLachlan <i>Department of Materials, Imperial College London, UK</i>	09:00-09:20 INVITED	Advanced manufacturing Technology Integration in Industry: Barrier and success levers B. Fillon <i>CEA-LITEN, France</i>
09:20-09:40 INVITED	Pristine C60 and C70 fullerenes As Electron Transport Materials for Perovskite Solar Cells J. Luis Delgado <i>POLYMAT, Centro Joxe Mari Kortza, Donostia-San Sebastián, Spain</i>	09:20-09:40 INVITED	Advanced Glass Technologies for next generation displays and flexible glass devices M. Prassas <i>Corning European Technology Center, Avon, France</i>
09:40-09:55	Inverted I-V characteristics of nanoparticle based ZnO diodes P. Mundt ^{1,2} , S. Vogel ¹ , K. Bonrad ² , H. von Seggern ¹ ¹ <i>Institute of Materials Science, Technische Universität Darmstadt, Germany</i> ² <i>MerckLab at Technische Universität Darmstadt</i>	09:40-09:55 PROJECT	Unique R2R Pilot to Production line with In-line Optical Metrology (EU Project Smartonics) A. Laskarakis, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>
09:55-10:10	Synthesis and Characterization of New PEDOT:Polyelectrolyte Systems A. Hofmann, D. Katsigiannopoulos, C. Brochon, E. Cloutet, G. Hadziioannou <i>Laboratoire de Chimie des Polymères Organiques, University Bordeaux, France</i>	09:55-10:10	Inline-Imaging-Ellipsometry For Flexible Electronics F. Bammer, F. Huemer <i>Institute for Manufacturing and Laser Technology, Vienna University of Technology, Vienna, Austria</i>
10:10-10:25	A study of organic semiconductor doping and its application in a photodetector as hole transport layer J. Herrbach ¹ , A. Revaux ¹ , D. Vuillaume ² , A. Kahn ³ ¹ <i>Univ. Grenoble Alpes, CEA-LITEN, Grenoble, France</i> , ² <i>IEMN, CNRS, Univ. Lille, France</i> ³ <i>Dept. Electrical Engineering, Princeton University, Princeton, USA</i>	10:10-10:25 PROJECT	A new printed and laser-ablated multilevel interconnect technology for flexible electronics on Paper A. Dray, A. Delattre <i>Centre Technique du Papier, Domaine Universitaire, CS 90251, 38044 Grenoble, France</i>
10:25-10:40	Toward Low-Voltage and Bendable Radiation Direct Detectors Based on Organic Semiconducting Single Crystals A. Ciavatti ¹ , A. Fraleoni-Morgera ² , P.J. Sellin ³ , P. Cosseddu ⁴ , A. Bonfiglio ⁴ and B. Fraboni ¹ ¹ <i>Dept. Physics and Astronomy, University of Bologna, Italy</i> , ² <i>Dept. Engineering and Architecture, University of Trieste, Italy</i> , ³ <i>Dept. Physics, University of Surrey, UK</i> , ⁴ <i>Dept. Electrical and Electronic Engineering, University of Cagliari</i>	10:25-10:40	Optical characterization of organic materials using Spectroscopic Ellipsometer & Raman Spectrometer on Roll-to-Roll Pilot line J. P. Gaston <i>Horiba, France</i>
10:40-11:00	Impact of Regiochemistry on the Hole Transporting Ability of High-Performance Organic Semiconductors J. Park, E.-K. Lee, J. Kim, J. Y. Jung <i>Material Research Center, Samsung Advanced Institute of Technology, Samsung Electronics Co. Korea</i>	10:40-11:00	Inline determination of crosslinking degree via optical measurement system F. Ruess ¹ , E. Küçükpınar ¹ , J. Fahlteich ² , S Amberg-Schwab ³ , A. Holländer ⁴ ¹ <i>Fraunhofer Institute for Process Engineering and Packaging IVV Freising, Germany</i> ² <i>Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Dresden, Germany</i> ³ <i>Fraunhofer Institute for Silicate Research ISC Würzburg, Germany</i> ⁴ <i>Fraunhofer Institute for Applied Polymer Research IAP, Potsdam, Germany</i>

11:00 – 11:30	Coffee Break Posters ISFOE16 1 – Exhibition – Networking EXPO FORUM 1
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11:30-13:30	Workshop on OPVs 1 (Timber Hall 2) Chair: K. Fostiropoulos, Helmholtz Zentrum Berlin, Germany		
11:30-12:00 KEYNOTE	On the Efficiency Limit of Conjugated Polymer:Fullerene-Based Bulk Heterojunction Solar Cells M. Scharber <i>Linz Institute for Organic Solar Cells, Johannes Kepler University Linz, Linz, Austria</i>	12:00-13:00	Workshop on Computational Modelling 2 (Timber Hall 1) Chair: E. Lidorikis, University of Ioannina, Greece
12:00-12:20 INVITED	Thermal Stabilization of the Bulk-Heterojunction Morphology in Polymer-Fullerene Solar Cells S. Janietz ¹ , P. Pingel ¹ , B. Gruber ¹ , A. Bouvet-Marchand ² , A. Graillet ² , C. Loubat ² ¹ <i>Fraunhofer Institute for Applied Polymer Research (IAP), Potsdam, Germany</i> ² <i>SPECIFIC POLYMERS, ZAC, Castris, France</i>	12:00-12:20 INVITED	Theoretical description of charge transport in disordered organic semiconductors Sergei Baranovski <i>Department of Physics, Philipps-University Marburg, Germany</i>
12:20-12:40 INVITED	Interlayer for high performance organic solar cells Hyeok Kim ¹ , Jun Young Kim ² , Kunsik An ³ , Changhee Lee ³ ¹ <i>Construction Equipment Technology Center, Korea Institute of Industrial Technology, Korea</i> ² <i>OLED Advanced Technology Team, LG Display, Korea</i> ³ <i>Department of Electrical and Computer Engineering, Seoul National University, Korea</i>	12:20-12:40 INVITED	Macroscopic Computational Modeling for Organic Electronic Devices Chang-Hyun Kim ¹ <i>Research Institute for Solar and Sustainable Energies, Gwangju Institute of Science and Technology, Republic of Korea</i> ² <i>School of Materials Science and Engineering, Gwangju Institute of Science and Technology, Republic of Korea</i>

12:40-13:00 INVITED	CEA's design-on-demand printed photovoltaics: performances and reliability S. Cros <i>Laboratoire des technologies pour les Modules PhotoVoltaïques Organiques, CEA, France</i>	12:40-13:00 INVITED	Mixed halide and lead-free double perovskites from first-principles G. Volonakis, F. Giustino <i>Department of Materials, University of Oxford</i>
13:00-13:15 PROJECT	Towards solutions processable, tandem, OPV: key results of the Sunflower EU project G. Nisato <i>CSEM – Swiss Center for Electronics and Microtechnology, Switzerland</i>	13:00-13:15	Simulating the opto-thermal processes involved in laser induced self-assembly of surface and sub-surface plasmonic nano-structuring D.V. Bellas ¹ , N. Kalfagiannis ² , D.C. Koutsogeorgis ² , P. Patsalas ³ , E. Lidorikis ^{1,*} ¹ <i>Department of Materials Science and Engineering, University of Ioannina, GR-45110 Ioannina, Greece</i> ² <i>School of Science and Technology, Nottingham Trent University, NG11 8NS, Nottingham, United Kingdom</i> ⁴ <i>Department of Physics, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece</i>
13:15-13:30	Efficient Organic Photovoltaics Prepared by Sequential Solution Deposition Jeesoo Seok, Yun Hee Jang, Heewon Hwang, Kyungkon Kim <i>Department of Chemistry and Nano Science, Ewha Womans University, Seoul, Korea</i>		

**13:30 – 15:00 LUNCH BREAK – NETWORKING
ISFOE16 Posters 1**

15:00 – 17:55	Workshop on OPVs 2 (Timber Hall 2) Chairs: K. Porfyrakis, University of Oxford, UK		
15:00-15:30 KEYNOTE	Perovskite solar cells: fundamentals, new materials and improved performance G. Boschloo <i>Department of Chemistry, Uppsala University, Sweden</i>	15:30 – 17:55	OLED Displays & Lighting (Timber Hall 1) Chairs: J. K. Kallitsis, University of Patras, Greece
15:30-15:50 INVITED	Controlling of Nucleation and Crystal growth on mix-halide perovskite precursor for high efficiency perovskite solar cells Nobuya Sakai ¹ , Sandeep Pathak ^{1,2} , Henry J. Snaith ¹ ¹ <i>University of Oxford Department of Physics, UK</i> ² <i>Indian Institute of Technology Delhi, Hauz Khas, New Delhi, Delhi 110016, India</i>	15:30-15:50 INVITED	Solution processed tandem OLEDs S. Höfle ¹ , C. Bernhard ¹ , M. Bruns ^{2,4} , C. Kübel ^{3,4} , T. Scherer ^{3,4} , A. Colmann ¹ ¹ <i>Karlsruhe Institute of Technology (KIT), Lichttechnisches Institut, Germany, 2 KIT, Institute for Applied Materials, Germany, 3 KIT, Institute of Nanotechnology, Germany, 4 KIT, Karlsruhe Nano Micro Facility (KNMF), Germany</i>
15:50 – 16:10 INVITED	High-Performing Polymer Solar Cells and Tandems: Materials Selection, Concurrent Modeling and Device Optimizations P. M. Beaujuge <i>Physical Sciences and Engineering Division, Solar & Photovoltaic Engineering Research Center (SPERC), King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Saudi Arabia</i>	15:50 – 16:10 INVITED	Solution processing of organic light emitting diodes C. Boeffel, S. Kröpke, A. Lange, A. Wedel, J. Kim <i>Fraunhofer IAP, Potsdam, Germany</i>
16:10 – 16:25	Inorganic materials for flexible electronics: perovskite oxides come on the scene I. Bretos, R. Jiménez, J. Ricote, and M.L. Calzada <i>Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC), Madrid, Spain</i>	16:10 – 16:25	Investigation of Bistable Organic Light Emitting Devices based on deep red Platinum complexes B. Blondel ^{1,2} , C. Renaud ¹ , I. Sasaki ² ¹ <i>Université de Toulouse ; UPS, INP ; LAPLACE (Laboratoire Plasma et Conversion d'Energie), France</i> ² <i>Laboratoire de Chimie de Coordination, Toulouse, France</i>
16:25 – 16:40	Nanoscale functional imaging reveals mechanisms of superior thermal stability in PTB7:PCBM blends for high-performance organic solar cells M. Pfannmöller ¹ , S. Ben Dkhil ² , H. Heidari ¹ , C. Vidolot-Ackermann ² , O. Margeat ² , J. Ackermann ² , S. Bals ¹ ¹ <i>EMAT, Antwerp University, Groenenborgerlaan 171, Antwerp, Belgium</i> ² <i>Centre Interdisciplinaire de Nanosciences de Marseille CiNAm, Aix-Marseille University, France</i>	16:25 – 16:40 PROJECT	Luminaire Project G. Giuliani <i>University of Pavia, Italy</i>
16:40 – 16:55 PROJECT	Towards High Efficiency Multi-junction Organic Solar Cells Paola Mantilla-Perez ¹ , Quan Liu ¹ , Pablo Romero-Gómez ¹ , Jordi Martorell ¹ , 2 ¹ <i>ICFO-Institut de Ciències Fotòniques, The Barcelona Institute of Science and Technology, 08860 Castelldefels (Barcelona), Spain</i> ² <i>Departament de Física, Universitat Politècnica de Catalunya, 08222 Terrassa, Spain</i>	16:40 – 16:55 PROJECT	H2020 LEO project: advanced technologies for cheaper and greener OLEDs B. Racine ¹ , H. Kanaan ¹ , T. Mairon ¹ , S. Gétin ¹ , B. Aventurier ¹ , F. Sermet ¹ , J.Y. Laurent ¹ , J. Tallal ¹ , C. Laugier ¹ , C. Celle ¹ , N. Riegel ² , A. Fleissner ² , E. Lang ² , S. Wittmann ² , P. Guaino ³ , J. Denayer ³ , M. Karuppasamy ³ , C. Dieu ³ , D. Volz ⁴ , J. Navarro ⁴ , S. Toffanin ⁵ , S. D. Quiroga ⁵ , J. Malicka ⁶ , C. Delgado ⁷ and E. Quesnel ¹ ¹ <i>Univerité Grenoble-Alpes, France, 2 OSRAM-OLED GmbH, Germany, 3 Advanced Coatings & Construction Solutions, Belgium, 4 CYNORA GmbH, Germany, 5 CNR-ISMN, Italy, 6 MIST E-R s.c.r.l., Italy, 7 Gaiker, Spain</i>
16:55 – 17:10	Prediction, from first principles and before their synthesis, of the bands and band gaps of small molecule based organic semiconductors S. Gueddida, D. Foerster <i>LOMA, University of Bordeaux, France</i>	16:55 – 17:10	Fully printed semi-transparent organic light emitting devices with adjustable emission direction for window application Carina Bronnbauer ^{1,2} , Andres Osvet ¹ , Christoph J. Brabec ^{1,2,3} and Karen Forberich ¹ ¹ <i>Institute of Materials for Electronics and Energy Technology (i-MEET), Univ. Erlangen-Nürnberg, Germany</i> ² <i>Erlangen Graduate School in Advanced Optical Technologies (SAOT) Univ. Erlangen-Nürnberg, Germany</i> ³ <i>Bavarian Center for Applied Energy Research (ZAE Bayern), Erlangen, Germany</i>
17:10 – 17:25	A series of pyrene-substituted SiPc and SiNc as near-IR sensitizers in organic ternary and quaternary solar cells: Synthesis and device fabrication L. Ke1, J. Min1, M. Adam2, N. Gasparini1, R. R. Tykwinski2, C. J. Brabec1, T. Ameri1 <i>1Materials for Electronics and Energy Technology (i-MEET), Friedrich-Alexander-University Erlangen-Nuremberg, Martensstrasse 7, 91058 Erlangen, Germany</i>	17:10 – 17:25	Copolymers containing carbazole anthracene and benzothiadiazole derivatives for LED applications K. Simitzi ¹ , A.K. Andreopoulos ^{1,2} , C. Anastasopoulos ¹ , J. K. Kallitsis ^{1,2} ¹ <i>Department of Chemistry, University of Patras</i> ² <i>Foundation Research Technology Hellas, Institute of Chemical Engineering Sciences (FORTH-ICE-HT), Patras, Greece</i>

	2Department of Chemistry and Pharmacy & Interdisciplinary Center of Molecular Materials (ICMM), Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen, Germany		
17:25 – 17:40	Perovskite solar cells from small scale spin coating processes towards roll-to-roll printing: Optical and Morphological studies L. Tzounis ¹ , T. Stergiopoulos ² , A. Zachariadis ¹ , C. Gravalidis ¹ , A. Laskarakis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² Department of Chemistry, Aristotle University of Thessaloniki, Greece	17:25 – 17:40	Heteroleptic light-emitting copper(I) complexes with applications in light-emitting electrochemical cells (LECs) S. Keller, C. E. Housecroft, E. C. Constable Department of Chemistry, University of Basel, Switzerland
17:40 – 17:55	Performance of Donor-Acceptor copolymer materials PCPDTBT and PCDTBT with poly hexyl thiophene polymer in a ternary blend G. Sivakumar ¹ , 2, T. Pratyusha ² , S.Shrey ² , W.Shen ¹ , D.Gupta ² ¹ Chemical engineering, Monash University, Clayton, VIC Australia ² Metallurgical engineering and material science, IIT Bombay, Mumbai, India	17:40 – 17:55	Highly efficient inverted top-emitting organic light emitting diodes using a multilayer translucent top electrode with angular color uniformity T. Oono, H. Fukagawa, T. Shimizu, Y. Fujisaki, T. Yamamoto NHK Science & Technology Research Laboratories, Tokyo, Japan

18:00 – 18:30	Coffee Break – Posters – Exhibition EXPO FORUM 2		
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18:30 - 20:30	PLENARY SESSION NANOTECHNOLOGY 2016 (Grand Petra) Introduction: Prof. S. Logothetidis, NANOTECHNOLOGY Chairman		
18:30 – 18:45	Introduction by Prof. Stergios Logothetidis NN16 & ISFOE16 Chairman		
18:45 – 19:30 PLENARY	Nanoparticles: characterization and applications Francesco Stellacci <i>Supramolecular Nanomaterials and Interfaces Laboratory (SuNml), Materials Science & Engineering, School of Engineering, EPFL, Switzerland</i>		
19:30 – 20:15 PLENARY	Injectable Hydrogels for Growth Factor and Stem Cell Delivery in Tissue Engineering Antonios G. Mikos <i>Department of Bioengineering, Rice University, USA</i>		
20:15 – 21:00 PLENARY	Materials and Concepts for Printed Photovoltaic Technologies Christoph Brabec <i>Friedrich-Alexander Universitat Erlangen-Nurnberg, Germany</i>		

21:00	DRINKS & OFFICIAL DINNER (ISFOE16 & NN16) PORTO PALACE CONFERENCE CENTRE & HOTEL - ROOF GARDEN		
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Wednesday 6 July 2016

08:00	Registration		
09:00–11:00 Workshop on OLAE Materials 4 (Timber Hall 2) Chair: A. Colsmann, Karlsruhe Institute of Technology, Germany			
09:00-09:30 KEYNOTE	Exploring the Correlations between Microstructure, Performance and Lifetime for Printed Solar Cells Christoph J. Brabec <i>i-MEET, Department of Material Science, Friedrich-Alexander University Erlangen-Nurnberg, Erlangen, D- 91058 Germany</i> <i>ZAE Bayern e.V., Renewable Energies, D-91058 Erlangen, Germany</i>		
09:30-10:00 INVITED	Biopolymers in electronics F.Stelzer ¹ , St.Spirk ¹ , B.Stadlober ² , Th. Griesser ³ , H.Plank ⁴ <i>1 Institute for Chemistry and Technology of Materials, Graz University of Technology, Graz, Austria</i> <i>2 Joanneum Research GmbH, Weiz, Austria, 3 University of Leoben, Leoben, Austria, 4 Institute for Electron Microscopy and Nanoanalysis, Graz University of Technology, Graz, Austria</i>	09:30 - 11:15	Workshop on Graphene 1 (Crystal Hall) (ISFOE16+NN16) Chairs: A. Oikonomou
10:00 –10:15	A study on the role of oxygen in the reliability of organic photodiodes P. Lienhard ¹ , A. Revaux ¹ , A. Pereira ¹ , S. Jacob ¹ , A. Kyndiah ¹ , J. Faure-Vincent ² , D. Djurado ³ <i>¹CEA-LITEN, Univ. Grenoble Alpes, ²CEA-INAC, Univ. Grenoble Alpes, ³CNRS-INAC, Univ. Grenoble Alpes, Grenoble FRANCE</i>	09:30 - 10:00 INVITED	The hot pick-up technique for batch assembly of van der Waals heterostructures T. Booth <i>DTU, Denmark</i>
10:15 –10:30	Flexible X-ray detectors based on organic thin films L. Basiricò ¹ , A. Ciavattini ¹ , T. Cramer ¹ , P. Cosseddu ² , A. Bonfiglio ² , B. Fraboni ¹ <i>¹Univ. Bologna, Dept. Physics and Astronomy, Bologna, Italy</i> <i>²Univ. Cagliari, Dept. Electrical and Electronic Engineering, Cagliari, Italy</i>	10:00-10:30 INVITED	New materials for van der Waals heterostructures R. Gorbachev <i>School of Physics and Astronomy, University of Manchester, UK</i>
10:30-10:45	Functional ultra-thin glass structures for colour-conversion C.Foucher ¹ , A. Gomez Diaz ² , S. Rajbhandari ² , H. Chun ² , D.A. Vithanage ³ , G.A. Turnbull ³ , I.D.W. Samuel ³ , G. Faulkner ² , D. O'Brien ² , N. Laurand ¹ , M.D. Dawson ¹ <i>1 Institute of Photonics, department of Physics, University of Strathclyde, UK</i> <i>2 Department of Engineering Science, University of Oxford, UK</i> <i>3 School of Physics & Astronomy, University of St Andrews, UK</i>	10:30 –11:00 INVITED	Sustained inflammation and genotoxicity following pulmonary exposure to graphene and graphene oxide in mice S. Bengtson ^{1,2} , K Kling ¹ , K. B. Knudsen ¹ , Z. O. Kyjovska ¹ , A. M. Madsen ¹ , P. A. Clausen ¹ , A. W. Nørgaard ¹ , R. Ramos ^{3,4} , H. Okuno ^{3,5} , J. Dijon ^{3,4} , B. Alonso ⁶ , A. Pesquera ⁶ , A. Zurutuza ⁶ , N. R. Jacobsen ¹ , H. Wallin ^{1,7} and U. Vogel ^{1,8} . <i>1 National Research Centre for the Working Environment, Denmark, 2 Department of Science and Environment, Roskilde University, Denmark, 3 CEA GRENOBLE, France, 4 CEA/LITEN/DTNM, France, 5 Nanoscience and Cryogeny Institute CEA/DRF/INAC/MEM, 38054 Grenoble cedex, France, 6 Graphenea S.A. Spain, 7 Department of Public Health, University of Copenhagen, Denmark, 8 Technical University of Denmark, Denmark</i>
10:45–11:00	Electrical and Mechanical Characterization of Electroactive Polymer With Nanofiller Reinforcement A. Öztürk <i>Department of Mechatronics Engineering, Marmara University, Istanbul, Turkey</i>	11:00-11:15	Surface Energy and Morphology of Graphene Nano Platelet Films by Plasma Deposition at Titanium J. Heeg, J. Strehlau, A. Schütz, M. Wienecke <i>Institute of Surface and Thin Film Technology, Wismar University of Applied Sciences, Wismar, Germany</i>
11:00-11:15 PROJECT	Mathero - Developing Environmentally Compatible Organic Solar Cells C. Chochos <i>Advent Technologies SA, Patras, Greece</i>		
11:00– 11:30	Coffee Break – Posters – Exhibition – Networking EXPO FORUM 3		
11:30-13:30	Workshop on OTFTs 2 (Timber Hall 2) Chair: T. Anthopoulos, Imperial College London, UK		
11:30-12:00 KEYNOTE	Imperceptible Active Sensors for Cyber–Physical Systems-Wearable and implantable brain wave monitoring systems T. Sekitani <i>The Institute of Scientific and Industrial Research, Osaka University, Japan</i>	12:00-13:45	Workshop on Graphene 2 (Crystal Hall) (ISFOE16+NN16) Chairs: T. Booth
12:00-12:30 INVITED	Fullerene Mixtures for FETs and Polymer Solar Cells C. Muller <i>Chemistry and Chemical Engineering, Chalmers University of Technology, Sweden</i>	12:00-12:30 INVITED	2D materials for energy A. Oikonomou ^{1,2} <i>¹National Graphene Institute, The University of Manchester, Manchester, UK</i> <i>²Eksagon Group Ltd, Manchester, UK</i>
12:30-12:45	Interface Trap State Characterization of Metal-Insulator-Semiconductor Structures Based on Photosensitive Organic Materials E. Bezzeccheri, A. Femiliosa, R. Liguori, A. Rubino <i>Department of Industrial Engineering, University of Salerno, Italy</i>	12:30-13:00 INVITED	Graphene and transition metal dichalcogenides for flexible high frequency electronics G. Deligeorgis ¹ , K.Triantopoulos ² , F.Iacovella ^{2,3} , V. Prudkovskiy ^{2,3} , G.Stavriniadis ¹ <i>¹ FORTH – IESL Microelectronics Research Group, Crete, Greece</i> <i>² Physics department, University of Crete, Heraklion, Crete, Greece</i>

12:45-13:00	Study of Triphenylamine Copolymer/Carbon Nanotube Nanocomposite for Transparent Thin Film Transistors Yi-Fang Su, Yian Tai <i>National Taiwan University of Science and Technology, Taiwan(R.O.C)</i>		³ <i>Center for Quantum Complexity and Nanotechnology (CCQCN), Physics Department, University of Crete, Greece</i>
13:00-13:15 PROJECT	Large area transparent thin film thermoelectric devices for smart window and flexible applications - TransFlexTeg J.Loureiro ¹ , M.Pudas ² , K.Tappura ³ , K.Jaakkola ³ , M.Bari ⁴ , M.Ruoho ⁵ , I.Tittonen ⁵ , S.Volz ⁶ , C.Pavan ⁷ , K.Costabello ⁷ , D.Bollen ⁸ , M.Haslam ⁹ , I.Ferreira ¹ ¹ <i>3N/CENIMAT and UNINOVA, Portugal</i> ; ² <i>PICOSUN, Finland</i> ; ³ <i>VTT, Finland</i> ; ⁴ <i>STREP, Ireland</i> ; ⁵ <i>Aalto University, Finland</i> ; ⁶ <i>CNRS, France</i> ; ⁷ <i>GRINP, Italy</i> ; ⁸ <i>AGFA, Belgium</i> ; ⁹ <i>Solearth, Ireland</i>	13:00-13:15	In-Situ and Real-time Spectroscopic Ellipsometry of CVD grown Graphene on metallic substrates A. Zachariadis ¹ , A. Laskarakis ¹ , E.M. Pechlivanis ¹ , V. Matskos ² , S. Logothetidis ¹ ¹ <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Physics Dept, Thessaloniki, Greece</i> ² <i>Organic Electronic Technologies (OET), Antoni Tritsi 21B, 57001 Thessaloniki, Greece</i>
13:15-13:30 PROJECT	HAPPINESS - Haptic Printed Patterned Interfaces for Sensitive Surfaces R. Gwoziecki ^{1,2} , A. Latour ^{1,2} , M.Galliaris ^{1,2} , F.Casset ^{1,3} , P.Poncet ^{1,3} , S.Fanget ^{1,3} , A.Martinet ^{1,2} , C.Serbutoviez ^{1,2} ¹ <i>Univ. Grenoble Alpes, Grenoble, France</i> ; ² <i>CEA-Liten, DTNM, LCEI, France</i> ; ³ <i>CEA-LETI, Minatec Campus, Grenoble, France</i>	13:15-13:30	About Possible Mechanism of SERS on Graphene V.P. Chelibanov ¹ , S.A. Ktitorov ² , A.M. Polubotko² , Yu. A. Firsov ² ¹ <i>ITMO University, Saint Petersburg, Russia</i> ² <i>A.F. Ioffe Physico-Technical Institute, Russian Academy of Sciences, Saint Petersburg, Russia</i>
		13:30-13:45	Comparison of Organic Solvents for Wet Chemical Transfer of CVD Graphene T. Erol <i>Faculty of Engineering and Natural Sciences, Sabanci University, Turkey</i>

13:30-15:00	LUNCH BREAK ISFOE16 POSTERS 2 (NN16 W4, W5 POSTERS)
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15:00 – 16:15	Workshop on OTFTs 3 (Timber Hall 2) Chair: L. Tzounis, LTFN, Greece	15:00 – 17:45	Workshop on Bioelectronics (ISFOE16 + NN16 W4) (Timber Hall I) Chairs: G. Malliaras	15:00 – 18:15	Workshop on Graphene 3 (Crystal Hall) (ISFOE16+NN16) Chairs: G. Deligiorgis
15:00-15:30 INVITED	Development of Organic Semiconducting Materials for OTFT Y.H. Kim <i>Dept. Chemistry, Gyeongsang National Univ. Rep of Korea</i>	15:00-15:30 INVITED	Capacitive Coupling in electrolyte-gated organic field effect transistors F. Biscarini, M. Di Lauro, M. Berto, M. Giordani, C. A. Bortolotti <i>Life Sciences Dept., Università di Modena e Reggio Emilia, Via Campi 103, 41126 Modena, Italy</i>	15:00-15:30 INVITED	Two-dimensional materials and van der Waals heterostructures as a platform for integrated optoelectronic devices I. Goykhman <i>Engineering Department, University of Cambridge, UK</i>
15:30-16:00 INVITED	Novel approaches for the deposition and the patterning of materials toward the fabrication of organic electronic devices C. Pitsalidis <i>Institut Fresnel, France</i>	15:30-16:00 INVITED	Sensing properties of WO3 nanoparticles L Santos <i>CENIMAT/13N</i>	15:30-16:00 INVITED	Photodetection and Sensing with Graphene T. Echtermeyer <i>School of Electrical and Electronic Engineering, University of Manchester, UK</i>
16:00-16:15	Improving the Performance of Top Gated/Bottom Contact Organic Thin Film Transistor (OTFT) by Mixing Solvent Treatment of Active Layer Meng-Tieh, Liu, Yian Tai <i>Nat. Taiwan University Science Technology, Taiwan(R.O.C)</i>	16:00-16:15	New concept of 3D nano-micro structured biosensor with solid-liquid-gas co-existence for nanomole detection Xiangcheng Zhang <i>Suzhou Institute of Nano-Tech and Nano-Bionics, Chinese Academy</i>	16:00-16:30 INVITED	Graphene pillaring: Towards novel multifunctional materials D. Gournis <i>Department of Materials Science and Engineering, University of Ioannina, Greece</i>
16:15 – 18:15	Workshop on Smart Textiles (Timber Hall 2) Chair: L. van Langenhove, Univ. Ghent, Belgium	16:15-16:30	New strategy for preparing fluorescent carbon nitride nanoparticles for selective optosensing biochemical molecules Yong-Ill Lee <i>Dep. Chemistry, Changwon National University, Republic of Korea</i>		
16:15-16:45 INVITED	Smart Textiles & Wearables L. van Langenhove <i>University of Ghent, Belgium</i>	16:30-16:45	Paper-Based Nanobiosensors A. Öztürk <i>Department of Mechatronics Engineering, Marmara University</i>	16:30-16:45	Green2 Multifunctional Composites of Natural Rubber and Nanocarbon from Food Waste Christèle Jaillet-Bartholome <i>Centre de Recherche Paul Pascal-CNRS, Bordeaux, France</i>
16:45-17:15 INVITED	Human motion energy harvesters for wearables J.Blums1, G.Terlecka2, I.Gornevs1, A.Vilumsone2 <i>1 Institute of Technical Physics</i> <i>2 Institute of Design Technologies, Riga Technical University, Riga Latvia</i>	16:45-17:00	Bio-nano-complexes of the cholesterol oxidase enzyme connected with the gold-nano-particles as a SERS probe R. Wojnarowska ¹ , J. Polí ¹ , D. Broda ² , M. Gonchar ^{2,3} , E. M. Sheregii ¹ <i>1Center for Microelectronics and Nanotechnology, Un. of Rzeszow, Rzeszow, Poland, 2 Dept. of Biotechnology, Ins. of Applied Biotechnology and Basic Sciences, Un. of Rzeszow, Poland, 3 Ins. of Cell Biology, National Academy of Sciences of Ukraine, Ukraine</i>	16:45-17:00	Stability and properties of van der Waals heterostructures E. Gkogkosi <i>Department of Physics, National Technical University of Athens</i>
		17:00-17:30 INVITED	Organic electronics for in vitro toxicology: focus on 3D tissue models R. M. Owens	17:00-17:15 EU PROJECT	Defective and oxidized SnS2 monolayers: A first-principles study K. Iordanidou

			Dept. of Bioelectronics, Ecole des Mines de St. Etienne		Semiconductor Physics Lab, Dep. Physics & Astronomy, Univ. Leuven
				17:15-17:30	Identification of Carbon Allotropes in Tribolayers Obtained by Rubbing of Graphite A. Mailian ^{1,2} , Zh. Panosyan ² , Y. Yengibaryan ² , M. Mailian ³ <i>1 Ins. for Informatics, Yerevan, Armenia</i> <i>2 Laboratory of Heliotechnics, State Engineering Un., Yerevan, Armenia</i> <i>3 LTX-Credence Armenia, Yerevan, Armenia</i>
17:15-17:45 INVITED	Printing of Light Emitting Devices on Textiles Inge Verboven ¹ , Jeroen Stryckers ^{1,2} , Viktorija Mecnika ³ , Glen Vandevenne ^{1,2} , Mariagrazia Troja ⁴ , Martina Leins ⁴ , Matthias Walker ⁴ , Andreas Schulz ⁴ , Wim Deferme 1,5 <i>1 IMO-IMOMECE, Hasselt University, Belgium</i> <i>2 IMEC, IMOMECE, Diepenbeek, Belgium</i> <i>3 Institute of Textile Technology RWTH Aachen, Germany</i> <i>4 Inst. fur plasmaforschung, Universitat Stuttgart, Germany</i> <i>5 Flanders Make vzw, Lommel, Belgium</i>	17:30-17:45	A microfluidics integrated electronic monitoring system for an in vitro model of the renal tubule V.F. Curto, A. Hama, A. Pappa, M. Braendlein, J. Rivany, R. Owens <i>Department of Bioelectronics, EMSE, France</i>	17:30-17:45	Dichalcogenides supported single metal atoms and their fantastic catalytic activities <i>Haiping Lin, Chunmiao Du and Youyong Li</i> <i>Ins. of Functional Nano and Soft Materials (FUNSOM), Soochow Un., P. R. China</i>
17:45-18:00	Development of textile silicon solar cells and laser structuring of metalized textile fibers for smart textiles F.Kemper^{1,2} , M. Mohaupt ¹ , E. Beckert ¹ , R. Eberhardt ¹ , A. Tünnermann ^{1,2} , S. Nolte ² , J. Plentz ³ , G. Andr�3, S. Pause ⁴ <i>1 Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Jena, Germany, 2 Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Germany, 3 Leibniz Institute of Photonic Technology (IPHT), Germany 4 LLT Applikation GmbH, Ilmenau, Germany</i>			17:45-18:00	Ultrafast Carrier Dynamics and Its Fluence- Dependence in Stacked Monolayer Graphene J.A. Casta�eda¹ , H. Guimar�es Rosa ² , J.C.V. Gomes ² , E.A. Thoroh de Souza ³ , C.H. Brito Cruz ¹ , H.L. Fragnito ^{1,3} , L.A. Padilha ¹ <i>¹Institute of Physics "Gleb Wataghin", University of Campinas, Brazil</i> <i>²Center Advanced Materials, Nat. University of Singapore, Singapore</i> <i>³Mackgraphe, Mackenzie Presbyterian University, S�o Paulo, Brazil</i>
18:00-18:15	Submicron poly(N-vinylcarbazole) fiber waveguides Y. Ishii, S. Satozono, K. Omori, M. Fukuda <i>Department of Electrical and Electronic Information Engineering, Toyohashi University of Technology, Japan</i>				
18:15-18:30	Development of Polyaniline - Multiwalled Carbon Nanotubes (Pani-MWCNTs) Nanocomposite Coated Smart Fabric for Wearable Electronics Applications M. V. Kulkarni <i>Nanocomposite Laboratory, Centre for Materials for Electronics Technology (C-MET), Department of Electronics and Information Technology (DeitY), Govt. of India, INDIA</i>			18:00-18:15 INVITED	Nanotechnology of Graphene Interconnects on Flexible Substrates A. Christou Materials Science and Engineering Department

20:00	NANOTECHNOLOGY 2016 BEACH PARTY & SUMMER NIGHT SHOW RIVIERA BEACH BAR RESTO, CAPE TOUZLA, AGGELOCHORI
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Thursday 7 July 2016

08:00 – 20:00	Registration
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09:00 – 11:00	Workshop on OPVs 3 (Crystal Hall) Chair: M. Scharber, University Linz, Austria		
09:00 – 09:30 KEYNOTE	Electronic Trap States in Perovskite Solar Cells V. Dyakonov ^{1,2} , P. Rieder ¹ , D. Kiermasch ¹ , K. Tvingstedt ¹ , A. Baumann ² ¹ Experimental Physics VI, Faculty of Physics and Astronomy, University of Würzburg, Würzburg, Germany ² ZAE Bayern, Division Energy Efficiency, Würzburg, Germany	09:30–11:00	Workshop on Graphene & Related Materials 4 (Timber Hall 1) Chair: T.J. Echtermeyer
09:30 – 10:00 INVITED	High-quality Metal Halide Perovskite Thin Films through Lead Acetate Route: Fabrication, Crystallization Kinetics and Optoelectronic Applications Wei Zhang School of Chemistry, Joseph Banks Laboratories, University of Lincoln, Beevor Street, Lincoln, UK	09:30 – 10:00 INVITED	Water-based 2D-crystal Inks: from Production to Devices C. Casiraghi University of Manchester, UK
10:00–10:30 INVITED	Perovskite solar cells – opportunities and challenges M. Saliba École polytechnique fédérale de Lausanne (EPFL), Lausanne, Switzerland	10:00–10:30 INVITED	Graphene-related materials for organic and perovskite solar cells E. Kymakis School of Applied Technology, Technological Educational Institute (T.E.I) of Crete, Greece
10:30 – 10:45	Suppressing Energy Losses in Organic Solar Cells V. C. Nikolis, D. Spoltore, J. Benduhn, F. Holz Müller, C. Körner, K. Vandewal Institute for Applied Photophysics, Technical University Dresden, Dresden, Germany	10:30 – 10:45	Graphene structuration by self-assembly of block copolymers J. Arias-Zapata ^{1,2} , D. Ferrah ³ , J. Garnier ^{1,2} , S. Böhme ^{1,2} , C. Girardot ^{1,2} , G. Cunges ^{1,2} , M. Zelsmann ^{1,2} ¹ Univ. Grenoble Alpes, Grenoble, France, ² CNRS, Grenoble, France ³ CEA, LETI, MINATEC, Grenoble, France
10:45 – 11:00	Mechanical Stability and Interfacial Diffusion in Thermally-Aged Organic Solar Cells W. Greenbank ¹ , N. Rolston ² , L. Hirsch ¹ , G. Wantz ¹ , R. H. Dauskardt ² , S. Chambon ¹ ¹ University of Bordeaux, CNRS, Bordeaux INP, IMS, UMR 5218, F-33405 Talence, France ² Department of Materials Science and Engineering, Stanford University, Palo Alto, California, USA	10:45 – 11:00	Graphene Based Heterostructures Used for Fast and Broadband Photodetectors S. Li Institute of Functional Nano and Soft Materials (FUNSOM)

11:00 – 11:30	Coffee Break - POSTERS – Exhibition - Networking
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11:30 – 13:25	Workshop on OPVs 4 (Crystal Hall) Chairs: V. Dyakonov, University of Würzburg, Germany		
11:30-12:00 KEYNOTE	Eco-friendly fabrication of organic solar cells S. Gärtner, C. Sprau, K. Glaser, S. Sankaran, A. Colsmann Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany	12:00–13:30	Workshop on Graphene & Related Materials 5 (Timber Hall 1) Chairs: C. Casiraghi
12:00-12:30 INVITED	Stability of Printed Photovoltaics: In-situ Environmental Measurements for Identification of Degradation Pathways G. Dibb, J. Blakesley, F. Castro National Physical Laboratory, Materials Division, UK	12:00-12:30 INVITED	Graphene for energy applications: an update on running activities within the Graphene Flagship European project E. Quesnel Université Grenoble-Alpes, CEA, MINATEC Campus, 17 rue des Martyrs, 38054 Grenoble cedex, France
12:30-12:45	Solution Processed Metal Oxides as Anode Interlayers in Organic Optoelectronics: A Comparative Study M. Morbidoni, M. A. McLachlan Department of Materials & Centre for Plastic Electronics, Imperial College London, UK	12:30-12:45	Electrical and Optical Properties of graphene/boron nitride heterostructures on ultra-high molecular weight polyethylene E. H. Lock Materials Science and Technology Division, Naval Research Laboratory
12:45-13:00	Synthesis of photo active inks: toward more eco-friendly organic solar cells L. Parrenin ^{1,2,3} , C. Brochon ^{1,2,3} , E. Pavlopoulou ^{1,2,3} , G. Hadziioannou ^{1,2,3} , E. Cloutet ^{1,2,3} ¹ CNRS, Laboratoire de Chimie des Polymères Organiques (LCPO), France. ² Université de Bordeaux, LCPO, France ³ Institut Polytechnique de Bordeaux (IPB), LCPO, France	12:45-13:00	A Novel Methodology for Patterning High Quality Graphene Electrodes using Ultra-Fast Pulsed Laser E. M. Pechlivani ¹ , E. Mekeridis ¹ , D. Papas ² , A. Zachariadis ² , A. Laskarakis ² , V. Matskos ¹ , C. Gravalidis ² , S. Logothetidis ² ¹ Organic Electronic Technologies P.C., Antoni Tritsi 21B, 57001, Thessaloniki, Greece ² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Physics Dept, Thessaloniki, Greece
13:00 – 13:15 PROJECT	In-situ Mechanical Testing of Transparent Electrode Materials for Flexible Electronics G. Dibb, T. Maxwell, D. Milano, F. Castro National Physical Laboratory, Materials Division, UK	13:00 – 13:15 PROJECT	Processing and Characterisation of Few-Layer Graphene Sheets by Electric Arc Discharge D. Uzunsoy Department of Metallurgy & Materials Engineering, Bursa Technical University
13:15 – 13:30	The Influence of Silver Nanoparticles Incorporation on the Morphology and Structure of a Polymer-Fullerene Bulk Heterojunction E. Skoularioti ¹ , S. Kassavetis ^{1,2} , A. Spiliotis ¹ , K. Kyriazoudis ¹ , A. Zachariadis ¹ , A. Laskarakis ^{1,2} , P. Patsalas ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece, ² Department of Materials Science and Engineering, University of Ioannina, Greece	13:15 – 13:30	The Effect of Production Parameters on Continuous Graphene Oxide Fiber M. Olmez Polymer Science and Technology Istanbul Technical University, Turkey

13:30 – 15:30	LUNCH BREAK – NETWORKING - ISFOE16 POSTER SESSION II
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15:00 – 18:45	Workshop on Manufacturing & Laser Technologies 2 (Crystal Hall) Chairs: L. Tzounis, LTFN, AUTH, E. M. Pechlivani, OET, Greece
15:00 –15:20 INVITED	Flexible platform for laser fabricated electrical and optical interconnects S. Papazoglou ¹ , F. Zacharatos, M. Makrygianni ¹ , M. K. Filippidou ² , S. Chatzandroulis ² , I. Zergioti ¹ <i>1. National Technical University of Athens, Physics Department, Greece</i> <i>2. Inst. of Nanoscience and Nanotechnology, NCSR Demokritos, Greece</i>
15:20 – 15:40 INVITED	Conformable Printed Electronics: Recent developments towards robust smart devices C. Delgado Simao , A. Loi, J. Medina, C. De Haro, P. Lacharaise Functional Printed & Embedded Systems, Eurecat – Catalonia Technology Centre, Parc Científic i de la Innovació TecnoCampus, Mataró – Barcelona, Spain
15:40 – 16:00 INVITED	3D printed energy storage devices M. Ahmadi Zeidabadi , S. Carrión, J. María López, S. Martínez, L. Bautista <i>LEITAT Technological Center, Spain</i>
16:00 – 16:15	Manufacturing High efficiency, Large area, Fully printed, Flexible Organic Photovoltaics with Laser scribing, and In-line quality control tools in R2R process E. D. Mekeridis ¹ , S. Tsimiklil ¹ , C. Kapnopoulos ² , D. Pappas ² , A. Zachariadis ² , V. Matskos ¹ , A. Laskarakis ² , S. Logothetidis ² <i>¹ Organic Electronic Technologies P.C., Antoni Tritsi 21B, 57001, Thessaloniki, Greece</i> <i>² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Physics Dept, Thessaloniki, Greece</i>
16:15 – 16:30	Novel inkjet printable light filter approaches for fluorescent light detection in LoC F. Kemper^{1,2} , E. Beckert ¹ , R. Eberhardt ¹ , A. Tünnermann ^{1,2} <i>1 Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Albert-Einstein-Str. 7, D-07745 Jena, Germany</i> <i>2 Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Germany</i>
16:30 – 16:45	3D Printing of Plastics Structures Containing Conductive Traces V. Akhavan, ¹ S. Farnsworth, ¹ K. Church ² <i>1. NovaCentrix, 400 Parker Drive, Austin, TX, United States</i> <i>2. nScript, Inc., 12151 Research Pkwy, Orlando, FL, United States</i>
16:45 – 17:00 PROJECT	Indium-free transparent conductive oxide layer (EU Project INFINITY) A. Rexach , A. Gunner, A. Rana <i>TWI Ltd, Granta Park, Great Abington, CB21 6AL, Cambridge (UK)</i>
17:00 – 17:15 PROJECT	BASMATI – Bringing innovation by scaling up nanomaterials and inks for printing C. Gravalidis ¹ , S. Solan ² , T. Van Rompaey ³ <i>1 Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece</i> <i>2 CEA-LITEN, Grenoble, France</i> <i>3 Umicore GRD, Belgium</i>
17:15 – 17:30 PROJECT	ATLASS Project - Advanced High-Resolution Printing of Organic Transistors for Large Area Smart Surfaces M. Charbonneau ¹ , G. Lloyd ² , H. Gold ³ , M. Vilkmann ⁴ , C. Bay ⁵ , E. Cantatore ⁶ , T. Agostinelli ⁷ , L. Hergolson ⁸ , T. Woerly ⁹ <i>¹ CEA-LITEN, France, ²Merck Chemicals Ltd, United Kingdom, ³Johanneum Research, Austria, ⁴VTT Technical Research Centre, Finland, ⁵InCore System, France, ⁶Eindhoven University of Technology, Netherland, ⁷FlexEnable, United Kingdom, ⁸Thin Film Electronics, Sweden, ⁹Efficient Innovation, France</i>
17:30 – 17:45	Fabrication and optimization of flexible polymer light-emitting diodes by printing processes D. Kokkinos ^{1,2} , I. Moutsios ¹ , M. Gioti ¹ , C. I. Chaidou ¹ , E. D. Mekeridis ² , A. Laskarakis ¹ , J.K. Kallitsis ^{3,4} , S. Logothetidis ¹ <i>¹ Laboratory for Thin Films, Nanobiomaterials, Nanosystems & Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, Greece, ² Organic Electronic Technologies P.C. (OET), Thessaloniki, Greece</i> <i>³ Department of Chemistry, University of Patras, University Campus, Greece, ⁴ Foundation for Research and Technology Hellas, Institute of Chemical Engineering Sciences (FORTH/ICE-HT), Platani Str., Patras GR26504, Greece</i>
17:45– 18:00	Use of Inkjet Printing, Photonic Curing and Thermoforming Techniques to Form 3D Conductive Traces V. Akhavan , D. Pope, S. Farnsworth <i>NovaCentrix, Austin, Texas, United States</i>
18:00 – 18:15	Nanoscale co-planar optoelectronic and rf electronic devices enabled by adhesion lithography D.G. Georgiadou, G. Wyatt-Moon, J. Semple, T.D. Anthopoulos <i>Physics Department and Centre for Plastic Electronics, Imperial College London, UK</i>
18:15 – 18:30	Optimization of LOCA gap fill process by High Precision Slot Die N. Rikita, T. Kanayama, K. Takahashi, A. Hayashi, T. Ito <i>MMC Ryotec by Mitsubishi Materials, Yokoami, Sumida-Ku, Tokyo, Japan</i>
18:30 – 18:45	Young Researcher Award for Best Oral and Best Poster Presentations - Closing Remarks and Discussion - End of ISFOE16

POSTERS

POSTER GROUP 1 Monday 4 July: Poster Display & Presentations Tuesday 5 July: Poster Display Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs	
P1-1	Development of MWCNTs based Aqueous Ink for Flexible Electronics Applications M.V. Kulkarni <i>Nanocomposite Laboratory, Centre for Materials for Electronics Technology (C-MET), Department of Electronics and Information Technology (DeitY), Govt. of India, India</i>
P1-2	ELECTRIC CONDUCTING AND MAGNETIC PROPERTIES OF FUNCTIONALLY GRADED POLYMER COMPOSITES J. Aneli ¹ , L. Nadareishvili ² , M. Bolotashvili ¹ ¹ <i>Institute of Machine Mechanics, Tbilisi, Georgia</i> ² <i>Institute of Cybernetics of Georgian Technical University, Tbilisi, Georgia</i>
P1-3	New Light Emitting Electrochemical Cells with halogen containing [Cu(N^ΛN)(P^ΛP)][PF6] complexes F. Brunner ¹ , E. C. Constable ² , C. E. Housecroft ¹ , S. Keller ¹ , A. Pertegas ² and H.J. Bolink ² ¹ <i>Department of Chemistry, University of Basel, Basel, Switzerland</i> ² <i>Instituto de Ciencia Molecular, Universidad de Valencia, Paterna, Spain</i>
P1-4	Long-term water-stable organic electrochemical transistors based on PEDOT:PSS films via polymeric crystallinity control Seong-Min Kim, Chang-Hyun Kim, Youngseok Kim, Myung-Han Yoon <i>School of Materials Science and Engineering, Gwangju Institute of Science and Technology, Gwangju, Republic of Korea</i>
P1-5	Stretchable thin-film transistors fabricated on PDMS substrate with stiff-island structures Jae Bon Koo, Soon-Won Jung, Chan Woo Park, Bock Soon Na, Ji-Young Oh, Nae-Man Park, Yu Gyeong Moon, Sang Seok Lee, Seongdeok Ahn Electronics and Telecommunications Research Institute, Information & Communications Core Technology Research Laboratory, Korea
P1-6	Bis(pyrrolo[3,4-c]pyrrole-1,3-dione)-Based Efficient Polymers Containing Bi-thiophene and Thienothiophene π-Spacers for Polymer Solar Cells M. H. Hyun, V. Tamilavan, J. Sung Department of Chemistry, Pusan National University, Busan 609-735, South Korea
P1-7	Determination of antioxidants in food with Organic Electrochemical Transistors (OECTs) E. Garcia-Breijo ¹ , L. Contat-Rodrigo ¹ , P Garcia-Agost ¹ , J.V. Lidón-Roger ¹ , C. Perez-Fuster ¹ ¹ <i>Group of Electronic Development and Printed Sensors. (ged+ps). Centro de Reconocimiento Molecular y Desarrollo Tecnológico (IDM), Departamento de Química, Universitat Politècnica de València, Camí de Vera, s/n. 46022 Valencia, Spain</i>
P1-8	Trap Density Analysis in PC70BM n-type Thin Film Transistors through Admittance Studies M. R. Fiorillo ¹ , Emanuele Bezzeccheri, R. Liguori ¹ , C. Diletto ² , P. Tassinari ² , M. G. Maglione ² , P. Maddalena ³ , C. Minarini ² , A. Rubino ¹ ¹ <i>Department of Industrial Engineering, University of Salerno, via Giovanni Paolo II, Fisciano (SA), Italy</i> ² <i>Laboratory of Nanomaterials and Devices, ENEA C.R. Portici, p.le Enrico Fermi, 1, I-80055, Portici (NA), Italy</i> ³ <i>Department of Physical Science, University of Napoli Federico II – Monte S. Angelo, Via Cintia, I-80126, Napoli, Italy</i>
P1-9	Direct measurement of charge generation in thin film solar cells Kunsik An ¹ , Jiyun Song ¹ , Hyunho Lee ¹ , Jaehoon Kim ¹ , Seunghyun Rhee ¹ , Jaeyeol Kim ¹ , and Changhee Lee* ¹ ¹ <i>Department of Electrical and Computer Engineering, Seoul National University, Seoul 151-742, Republic of Korea</i>
P1-10	Development of butanoic acid capped silver nanoparticle ink and the study of the thermal and laser sintering of the deposited silver layers on polyimide and PET A.I. Titkov ¹ , O.A. Logutenko ¹ , I.K. Shundrina ² , Yu.M. Yukhin ¹ , N.Z. Lyakhov ¹ ¹ <i>Institute of Solid State Chemistry and Mechanochemistry, Siberian Branch of the Russian Academy of Sciences, Kutateladze, 18, Novosibirsk, 630128, Russian Federation</i> ² <i>N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry, Siberian Branch of Russian Academy of Sciences, Prospekt Akademika Lavrentieva 9, Novosibirsk, 630090, Russian Federation</i>
P1-11	The impact of processing conditions on the nanoscale morphology of square-centimeter sized PTB7 and PTB7-Th solar cells M. Pfanmüller ¹ , S. Ben Dkhil ² , H. Heidari ¹ , C. Videlat-Ackermann ² , O. Margeat ² , J. Ackermann ² , S. Bals ¹ ¹ <i>EMAT, Antwerp University, Groenenborgerlaan 171, Antwerp, Belgium</i> ² <i>Centre Interdisciplinaire de Nanosciences de Marseille CiNAm, UMR CNRS 7325, Aix-Marseille University, Marseille, France</i>
P1-12	Corona charging: Can it be used to characterize dielectric thin films for organic electronics? José A. Giacometti Instituto de Física de São Carlos, Universidade de São Paulo, 13566-590, São Carlos, SP, Brazil
P1-13	Low-temperature solution methods for perovskite oxides compatible with flexible electronics I. Bretos, R. Jiménez, J. Ricote, and M.L. Calzada Instituto de Ciencia de Materiales de Madrid (ICMM-CSIC) Sor Juana Inés de la Cruz 3, Cantoblanco, 28049 Madrid, Spain
P1-14	Fabrication of IGZO-based stretchable ferroelectric memory transistors on polydimethylsiloxane substrate Soon-Won Jung, Jae Bon Koo, Chan Woo Park, Bock Soon Na, Ji-Young Oh, Nae-Man Park, Yu Gyeong Moon, Sang Seok Lee, Seongdeok Ahn ICT Materials and Components Research Laboratory, Electronics and Telecommunications Research Institute (ETRI), 218 Gajeong-ro, Yuseong-gu, Daejeon, 34129, Republic of Korea,
P1-15	Toward High Performance Organic-based Solar Cells: Organic Material Development Jea Woong Jo ¹ , Myung-Seok Seo ¹ , Min Jae Ko ¹ , Hae Jung Son ¹ ¹ <i>Photo-electronic Hybrids research center, Korea Institute of Science and Technology (KIST), Republic of Korea</i>
P1-16	Graphene-based Interlayers for Efficient and Stable Organic Photovoltaics M. Krassas ¹ , G. Kakavelakis ¹ , P. Tzourmpakis ¹ , D. Konios ¹ , E. Kymakis ¹ ¹ <i>Center of Materials Technology and Photonics & Electrical Engineering Department, Technological Educational Institute (TEI) of Crete, Heraklion 71003, Crete, Greece</i>
P1-17	SubPhthalocyanine-Based Bulk Heterojunction Organic Solar Cells Abdulcelil Yuzer ¹ , Fatma Aslıhan Sari ¹ , Werther Cambarau ² , Mine Ince* ^{1,3} ¹ <i>Advanced Technology Research & Application Center Mersin University, Turkey</i> ² <i>Institut Catalàd' Investigació Química Av. Països Catalans 16 43007 Tarragona, Spain</i> ³ <i>Department of Energy Systems Engineering Faculty of Tarsus Technology, Mersin University, Turkey</i>
P1-18	Subphthalocyanine Sensitizers for Dye Sensitized Solar Cells Fatma Aslıhan Sari ¹ , Maxence Urbani ^{2,3,4} , Mohammad Khaja Nazeeruddin ³ , Tomás Torres ^{2,4} , Mine Ince* ^{1,5} ¹ <i>Advanced Technology Research & Application Center Mersin University, Turkey</i> ² <i>Departamento de Química Orgánica Universidad Autónoma de Madrid, Spain</i> ³ <i>Laboratory of Photonics and Interfaces Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology (EPFL), Switzerland.</i> ⁴ <i>Instituto Madrileño de Estudios Avanzados (IMDEA)-Nanociencia Spain</i> ⁵ <i>Department of Energy Systems Engineering Faculty of Tarsus Technology, Mersin University, Turkey</i>
P1-19	Cyclopentadithiophene derivatives as hole transporting materials for perovskite solar cells Wen-Tuan Wu ¹ , Ming-Ming Liu ¹ , Ching-Ming Hsu ¹ , Wen-Ti Wu ^{2*} ¹ <i>Dept. of Electro-Optical Engineering, Southern Taiwan University of Science and Technology, No. 1, Nan-Tai Street, Yung Kang Dist., Tainan 710, Taiwan</i> ² <i>Institute of Chemistry, Academia Sinica, 128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan</i>
P1-20	Large scale Dye Sensitized Solar Cell on an elastic, chemically hardened glass P. Kwaśnicki ¹ , M. Inglot ² , S. Chrobak ³

	<i>1,3 Research & Development Centre for Photovoltaics, ML System S.A Zaczernie 190 G, 36-062 Zaczernie, Poland, 2 Dpartments of Physics and Medical Engineering, Rzeszów Unieversity of Technology al. Powstańców Warszawy 6, 35-959 Rzeszów, Poland</i>
P1-21	Novel Diketopyrrolopyrrole chromophores for organic bulk heterojunction solar cells J. Humphreys, D.B. Amabilino <i>School of Chemistry, University of Nottingham, University Park, Nottingham, NG7 2RD, UK</i>
P1-22	Solar cell efficiency enhancement from chemically synthesized Silver Plasmonic Nanoparticles embedded in PEDOT:PSS matrix E. Chatzigeorgiou, A. Papamichail, C. Gravalidis, S. Logothetidis <i>Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece</i>
P1-23	A Theoretical Study of Intersystem Crossing and Phosphorescence rates in Biluminescent materials A. Alvertis, P. Kleine, C. Salas Redondo, T. Achenbach, R. Scholz, S. Reineke <i>Institut für Angewandte Photophysik, TU Dresden, 01069 Dresden, George-Bähr Straße 1, Germany</i>
P1-24	Microstrip antenna from silver nanoparticles printed on a flexible polymer substrate J. Matyas, P. Slobodian, L. Munster, R. Olejnik, P. Urbánek <i>Centre of Polymer Systems, Tomas Bata University in Zlin Tr. Tomase Bati 5678, 760 01 Zlin, Czech Republic</i>
P1-25	ITO-Free, Fully Solution Processed Transparent Organic Light-Emitting Electrochemical Cells on Thin Glass Z. Shu ^{1,2} ; F. Kemper ^{1,2} , E. Beckert ² , R. Eberhardt ² , A. Tünnermann ^{1,2} <i>1Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Max-Wien-Platz 1, D-07743 Jena</i> <i>2 Fraunhofer Institute for Applied Optics and Precision Engineering IOF, Department of Precision Engineering, Albert-Einstein-Str. 7, D-07745 Jena</i>
P1-26	Investigating the electrical conductivity of PMMA/ carbon black and of PS/PMMA/ carbon black blends prior to and after shear M. M. Voigt, Y. Pan, X. Liu, D.W. Schubert <i>Institute of Polymer Materials (LSP), Friedrich-Alexander University Erlangen-Nuremberg, Martensstr. 7, 91058 Erlangen, Germany</i>
P1-27	Fibre spinning and non-woven evaluation M. M. Voigt, F. Lanyi, K. Leucker, D.W. Schubert <i>Institute of Polymer Materials (LSP), Friedrich-Alexander University Erlangen-Nuremberg, Martensstr. 7, 91058 Erlangen, Germany</i>
P1-28	Simple all-vacuum preparation process for hybrid perovskite solar cells Apostolos Ioakeimidis, Christos Christodoulou, Konstantinos Fostiropoulos <i>Helmholtz-Zentrum Berlin für Materialien und Energie, Hahn-Meitner-Platz 1, 14109 Berlin, Germany</i>
P1-29	Simulating Non-Equilibrium Charge Carrier Kinetics in a Drift-Diffusion Model of Organic Disordered Semiconductors A. Hofacker ¹ , C. Körner ¹ , K. Vandewal ¹ , and K. Leo ^{1,2} <i>¹Dresden Integrated Center for Applied Physics and Photonic Materials (DC-IAPP) and Institute for Applied Physics, Technische Universität Dresden, D-01062 Dresden, Germany</i> <i>²Canadian Institute for Advanced Research (CIFAR), ON, CA-M5G 1Z8, Toronto, Canada</i>
P1-30	Raman for Water soluble J-type PBI aggregation study E. Alloa ¹ , V. Grande ² , S. Herbst ² , F. Würthner ² , S. C. Hayes ¹ <i>¹University of Cyprus, Department of Chemistry, Nicosia, 2109, Cyprus</i> <i>²Universität Würzburg, Institut für Organische Chemie, Würzburg, 97074, Germany</i>
P1-31	Improved charge transport in ultrathin semiconducting films via polymer aggregation L. Janasz ¹ , M. Gradzka ² , D. Chelbosz ² , A. Kiersnowski ² , W. Pisula ³ , K. Müllen ³ , J. Ulanski ¹ <i>¹Department of Molecular Physics, Lodz University of Technology, Zeromskiego 116, 90-924, Lodz, Poland</i> <i>²Polymer Engineering & Technology Division, Wroclaw University of Technology, Norwida 4/6, 50-373 Wroclaw, Poland</i> <i>³Max Planck Institute for Polymer Research, Ackermannweg 10, 55-128, Mainz, Germany</i>
P1-32	TiO2 films deposited by inkjet printing for electronic device applications W.Y. Padrón-Hernández ¹ , G. Rodríguez Gattorno ¹ , M.C.Ceballos Chuc ¹ , G. Oskam ¹ , W. Castillo-Toscano ² , J. C. Tinoco ³ , A. G. Martinez-Lopez ³ <i>1Departamento de Física Aplicada, CINVESTAV-IPN., Mérida, Yucatán, 97310, México.</i> <i>2Facultad de Ingeniería, Universidad Veracruzana, Calzada Ruiz Cortines, 455, Frac. Costa Verde, 94294, Veracruz, México.</i> <i>3Centro de Investigación en Micro y Nanotecnología, Universidad Veracruzana, Calzada Ruiz Cortines, 455, Frac. Costa Verde, 94294, Veracruz, México.</i>
P1-33	Adhesion studies of the barrier layers applied in the encapsulation of flexible organic electronic devices P. Gkertsiou, S. Tsimikli, S. Kassavetis, S. Logothetidis <i>Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Thessaloniki, Kentriki Makedonia, GR-54124, Greece</i>
P1-34	Development of physical sensor technology for gait analysis A. Öztürk ¹ , Hüseyin Yüce ¹ , Haluk Küçük ¹ <i>¹Department of Mechatronics Engineering, Marmara University Göztepe Campus, 34722, Kadıköy, Istanbul, TURKEY</i>
P1-35	First-principles study of the interface formed upon water adsorption on Ag surface. Stability and work function modification. E. Sfouggaris, A. Stamateris, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>

COMMON POSTER SESSION	
Tuesday 5 July: Poster Display	
Wednesday 6 July: Poster Display & Presentations	
Graphene and Related Materials (common with NN16 W5)	
P5-1	A comparison of electronic properties of few-layer graphene and germanene D. Coello-Fiallos ¹ , C. Vacacela Gomez ² , J. L. Guayllas ³ , A. Haro ³ , T. Tene ² <i>1Surface Nanoscience Group, Dep. of Physics, Uni. of Calabria, Via P. Bucci (CS), Italy</i> <i>2Dipartimento di Fisica, Università della Calabria, via Pietro Bucci, cubo 30c, Arcavacata di Rende 87036 (CS), Italy</i> <i>3Escuela de Física y Matemática, Escuela Superior Politécnica de Chimborazo, Riobamba EC060155, Ecuador</i>
P5-2	Facile synthesis of few-layer graphene flakes by hydrothermal and sonication treatments in a water-surfactant solution C. Vacacela Gomez ¹ , D. Coello-Fiallos ^{1,2} , E. Cazzanelli ¹ , A. Tavolaro ² , L. S. Caputi ¹ <i>1Dipartimento di Fisica, Università della Calabria, Via P. Bucci, Cubo, I-87036 Rende (CS), Italy</i> <i>2Research Institute on Membrane Technology (ITM-CNR), National Research Council of Italy c/o University of Calabria, Rende (CS), Italy</i>
P5-3	Post-growth modification of graphene films by microwave N₂ plasma treatments G. Robert-Bigras ¹ , L. Vandsburger ¹ , L. Stafford ¹ , A. Sarkissian ² <i>1Département de Physique, Université de Montréal, Montréal, Québec, CANADA</i> <i>2 Plasmionique Inc., Varennes, Québec, CANADA</i>
P5-4	Nonlocal vibration of a nanoplate influenced by in-plane magnetic field using finite element method M.Lazarević ¹ , M. Cajić ² , N.Nešić ² , D. Karličić ³ , N.Đurović ¹ , Lj.Bucanović ¹ <i>1Dep. of Mechanics, Uni. of Belgrade, Faculty of Mechanical Engineering Belgrade, Serbia</i> <i>2Dep. of Mechanics, Uni. of Belgrade, Mathematical Inst. of the SASA Belgrade, Serbia</i> <i>3Dep. of Mechanics, Uni. of Niš, Faculty of Mechanical Engineering Niš, Serbia</i>
P5-5	Thermal smearing of the magneto-Kohn anomaly for Dirac materials and comparison with the two-dimensional electron liquid

	<p><u>A. Balassis¹, G. Gumbs², D. Dahal², M. L. Glasser³</u> <i>1 Dep. of Physics & Engineering Physics, Fordham Univ. USA</i> <i>2 Dep. of Physics & Astronomy, Hunter College of the CUNY USA</i> <i>3 Dep. of Physics, Clarkson Univ. Potsdam, NY 13699</i></p>
P5-6	<p>Exfoliation method of Graphene oxide with large lateral size Via Couette-Taylor flow reactor <u>Young Jin Do¹, Won kyu Park¹, Seonmi Yoo¹, Seungdu Kim¹, Woo Seok Yang^{1*}</u> <i>1Electronic Materials and Devices Research Center, Korea Electronics Technology Inst. South Korea</i></p>
P5-7	<p>Rapid synthesis of high-quality graphene oxide sheets using Taylor vortex flow reactor <u>Seonmi Yoo¹, Won kyu Park^{1,2}, Seungdu Kim^{1,3}, Young Jin Do¹, Woo Seok Yang^{1*}</u> <i>1 Electronic Materials and Device Research Center, Korea Electronics Technology Inst., South Korea,</i> <i>2 Sch. of Advanced Materials Science and Engineering, Sungkyunkwan Univ., South Korea,</i> <i>3 Dep. of Materials Engineering, Korea Aerospace Univ. South Korea</i></p>
P5-8	<p>Modulation of graphene properties by underneath metals and its influence to contact resistance <u>G. Astromskas, V. Nargelienė, V. Bukauskas, A. Lukša, A. Sakavičius, A. Šetkus</u> <i>Center for Physical Sciences and Technology Vilnius, Lithuania</i></p>
P5-9	<p>Morphic Transitions of Nanocarbons via Laser Photopyrolysis of Polyimide Films <u>A. Tiliakos¹, C. Ceaus¹, S. M. Iordache¹, E. Vasile², I. Stamatina¹</u> <i>1: Uni. of Bucharest, Faculty of Physics, 3Nano-SAE Research Center, Bucharest, Romania</i> <i>2: Univ. Politehnica of Bucharest, Advanced Polymer Materials Group, Bucharest, Romania</i></p>
P5-10	<p>Graphene-based Xerogels as Electrodes in Microbial Fuel Cells <u>A. Cucu¹, A.M.I. Trefilov¹, A. Tiliakos¹, I. Stamatina¹, A. Ciocanea²</u> <i>1: Uni. of Bucharest, Faculty of Physics, 3Nano-SAE Research Center, Bucharest Romania</i> <i>2: Univ. Politehnica of Bucharest, Power Engineering Faculty, Hydraulics, Bucharest, Romania</i></p>
P5-11	<p>Energy Transfer from Quantum Dots to Graphene and MoS₂: The Role of Absorption and Screening in 2D Materials <u>J. Zultak^{1,2,3}, A. Raja^{2,3,7}, A. Montoya-Castillo², X-X. Zhang^{3,7}, Z. Ye^{3,7}, C. Roquelet³, D. A. Chenet⁴, A. M. van der Zande⁴, P. Huang², J. Hone⁴, D. R. Reichman², L. E. Brus², T. F. Heinz^{3,7,8}</u> <i>1Dep. of Micro- and Nanotechnology, Technical Uni. of Denmark, 2800 Kgs Lyngby, Denmark</i> <i>2Dep. of Chemistry, 3Dep.s of Physics and Electrical Engineering and 4Dep. of Mechanical Engineering, Columbia Univ., New York, USA</i> <i>5Dep. of Mechanical Science and Engineering, 6Dep. of Materials Science and Engineering, Uni. of Illinois at Urbana-Champaign, Urbana, USA</i> <i>7Dep. of Applied Physics, Stanford Univ., Stanford, CA 94305, USA</i> <i>8SLAC Nat. Accelerator Laboratory, Menlo Park, CA 94025, USA</i></p>
P5-12	<p>Reduction of Graphene Oxide with various aromatic diamines for electrically conductive materials <u>V. Belessi^{1,2*}, D. Petridis², V. Georgakilas³, M. Baikousi², K. Spyrou², V. Psycharis², D. Gournis⁴ and Th. Steriotis²</u> <i>1Dep. of Graphic Design, Section of Graphic Arts, Technological Educational Institution of Athens, Greece</i> <i>2Inst. of Nanoscience and Nanotechnology, NCSR "Demokritos" Athens, Greece</i> <i>3Dep. of Materials Science, UPATRAS, Greece</i> <i>4Dep. of Materials Science & Engineering, Uni. of Ioannina, Ioannina, Greece</i></p>
P5-13	<p>Electrical and Photovoltaic Characteristics of a Multi-Layer GaTe/IGZO p-n Heterojunction <u>Ah-Jin Cho^{1,2} and Jang-Yeon Kwon^{1,2}</u> <i>Sch. of Integrated Technology, Yonsei Univ. 1. Yonsei Inst. of Convergence Technology</i> <i>Songdogwahak-ro 85, Yeonsu-gu, Incheon, 406-840, South Korea</i>^{1,2}</p>
P5-14	<p>Graphene based composites using the monomers as a reducing agent <u>Chang Uk Seo^{1,2}, Su Yeon Choi¹ and Woo Seok Yang^{1*}</u> <i>Electronic Convergence Materials & Device Research Center, Korea Electronics Technology Inst.(KETI), Korea</i> <i>Sch. of Advanced Materials Science & Engineering, SungKyunKwan University(SKKU), Korea</i>²</p>
P5-15	<p>Comparison of heavy metal adsorption properties using magnetite-graphene oxide and magnetite-reduced graphene oxide <u>Sungkyun Lee^{a,c}, Yejoon Yoon^b, Seungdu Kim^{a,b}, Dae Ho Yoon^c, Woo Seok Yang^{a*}</u> <i>a Electronic Materials and Device Research Center, Korea Electronics Technology Inst. Seongnam, South Korea</i> <i>b Dep. of Materials Engineering, Korea Aerospace Univ., Goyang-si, 412-791, South Korea</i> <i>c Sch. of Advanced Materials Science and Engineering, Sungkyunkwan Univ., Suwon 440-746, South Korea</i></p>
P5-16	<p>Fabrication of graphene on the electroplating Cu/Graphite sheet for improving thermal properties. <u>ChanWoong Park^{a,b}, Yena Kim^{a,c}, Sungkyun Lee^{a,c}, YoungJoon Hong^b, WooSeok Yang^{a*}</u> <i>a Electronic Materials and Device Research Center, Korea Electronics Technology Inst. Seongnam, South Korea</i> <i>b Nanotechnology & Advanced Materials Engineering, Sejong Univ., Seoul, 143-747, South Korea</i></p>
P5-17	<p>Graphitization of SiC (0001) surface in Si flux <u>P. Ciocora¹, J.J. Kołodziej¹</u> <i>1Department of Synchrotron Radiation, Institute of Physics, Jagiellonian University ul. prof. Stanisława Łojasiewicza 11, 30-348 Kraków, Poland</i></p>
P5-18	<p>Low light solar cells <u>Djordje Jovanović¹, Tijana Tomasević¹, Aleksandar Matković^{1,2}, Nikola Tasić³, and Radoš Gajić¹</u> <i>1 EU Centre of Excellence for Optical Spectroscopy Applications in Physics, Institute of Physics Bel-grade, University of Belgrade, Serbia</i> <i>2 Institut für Physik, Montanuniversität Leoben, Leoben, Austria</i> <i>3 Department of Materials Science, Institute for Multidisciplinary Research, University of Belgrade, Serbia</i></p>
P5-19	<p>Modification of reduced graphene oxide with gold nanoparticles stabilized by SH-PEG-NH2 <u>A. Leniart¹, P.Szustakiewicz¹, W. Lewandowki¹</u> <i>1Faculty of Chemistry, University of Warsaw, Laboratory of organic nanomaterials and biomolecules, Pasteur 1 Street, 02-093 Warsaw, Poland</i></p>
P5-20	<p>Transparent Graphene Oxide and reduced Graphene Oxide Humidity Sensors <u>D.-P. Argyropoulos¹, S. Papamatthaiou¹, F. Farmakis¹, N. Georgoulas¹...</u> <i>Department of Electrical and Computer Engineering, University of Thrace Xanthi, Greece</i></p>
P5-21	<p>Sustained inflammation and genotoxicity following pulmonary exposure to graphene and graphene oxide in mice <u>S. Bengtson^{1,2}, K Kling¹, K. B. Knudsen¹, Z. O. Kyjovska¹, A. M. Madsen¹, P. A. Clausen¹, A. W. Nørgaard¹, R. Ramos^{3,4}, H. Okuno^{3,5}, J. Dijon^{3,4}, B. Alonso⁶, A. Pesquera⁶, A. Zurutuza⁶, N. R. Jacobsen¹, H. Wallin^{1,7} and U. Vogel^{1,8}.</u> <i>1 National Research Centre for the Working Environment, DK-2100 Copenhagen Ø, Denmark</i> <i>2 Department of Science and Environment, Roskilde University, DK-4000 Roskilde, Denmark</i> <i>3 CEA GRENoble, University Grenoble Alpes, F-38000 Grenoble, France</i> <i>4: Nanomaterials Technologies Department, CEA/LITEN/DTNM, 38054 Grenoble cedex, France</i> <i>5 Nanoscience and Cryogeny Institute CEA/DRF/INAC/MEM, 38054 Grenoble cedex, France</i> <i>6 R&D Department, Graphenea S.A, E-20018 Donostia, San Sebastian, Spain</i> <i>7 Department of Public Health, University of Copenhagen, DK-1014 Copenhagen K, Denmark</i> <i>8 Department of Micro- and Nanotechnology, Technical University of Denmark, DK-2800 Kgs. Lyngby, Denmark</i></p>
P5-22	<p>Direct transfer of graphene using poly vinyl alcohol films <u>D. Pappas¹, Z. Kyroudis¹, E.M. Pehlivanli², A. Laskarakis¹ and S. Logothetidis¹</u> <i>1Laboratory for Thin Films-Nanobiomaterials-Nanosystems and Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece</i> <i>2Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, Thessaloniki, 57001, Greece</i></p>
P5-23	<p>Effect reduced Graphene oxide and SWCNTs on performance of aqueous ink for printed supercapacitor</p>

	M. Ahmadi Zeidabadi ¹ , S. Carrion, C. Aucher, D. Gutierrez <i>Leitat, Acondicionamiento Tarrasense, Barcelona, Spain</i>
COMMON POSTER SESSION	
Thursday 7 July: Poster Display	
Friday 8 July: Poster Display & Presentations	
Bioelectronics (common with NN16 W4)	
P4-1	Charge oscillations in DNA monomers and dimers Maria Tassi ¹ , Andreas Morphis ¹ , Konstantinos Kaklamanis ¹ , Konstantinos Lambropoulos ¹ , Richard Lopp ² , Georgios Georgiadis ¹ , Marina Theodorakou ¹ , Maria Chatzieftheriou ³ and Constantinos Simserides ¹ <i>1Nat. and Kapodistrian Uni. of Athens, Faculty of Physics, Dep. of Solid State Physics, Athens, Greece</i> <i>2Georg-August-Universität Göttingen, Fakultät für Physik, Göttingen, Germany</i> <i>3Uni. of Copenhagen, Niels Bohr Inst., Copenhagen, Denmark</i>
P4-2	Targeted detection of mRNA biomarkers using graphene oxide and upconversion nanoparticles. Patrick Vilela, ¹ A. H. El-Sagheer, ^{3,4} T. Brown, ³ Timothy M. Millar, ⁵ Otto L. Muskens, ^{1,2} and A. G. Kanaras ^{1,2*} <i>1Physics and Astronomy, 2Inst. for Life Science, Uni. of Southampton, Southampton, SO17 1BJ, UK.</i> <i>3Dep. of Chemistry, Uni. of Oxford, Chemistry Research Laboratory, Oxford, OX1 3TA, UK.</i> <i>4Chemistry Branch, Dep. of Science and Mathematics, Faculty of Petroleum and Mining Engineering, Suez Univ., Suez 43721, Egypt.</i> <i>5 Medicine, Uni. of Southampton, UK</i>
P4-3	Celestine blue as a redox intercalating probe for electrochemical isothermal nucleic acid amplification platform Tsong-Tao Huang ^{1,2} , Yu-Jen Lin ² , Jun-Sheng Wang ¹ , Yu-Hsiang Tang ¹ , Chih-Sheng Yu ¹ , and Sheng-Tung Huang ^{2*} <i>1. Instrument Technology Research Center, Nat. Applied Research Laboratories</i> <i>2. Dep. of Chemical Engineering and Biotechnology, Nat. Taipei Uni. of Technology Hsinchu, Taiwan</i>
P4-4	Evaluating nucleic acid amplification platform by an electrochemical redox: Tert-butylhydroquinone (TBHQ) Tsong-Tao Huang ^{1,2} , Yu-Jen Lin ² , Jun-Sheng Wang ¹ , Yu-Hsiang Tang ¹ , Chih-Sheng Yu ¹ , and Sheng-Tung Huang ^{2*} <i>1. Instrument Technology Research Center, Nat. Applied Research Laboratories</i> <i>2. Dep. of Chemical Engineering and Biotechnology, Nat. Taipei Uni. of Technology Hsinchu, Taiwan</i>
P4-5	Freshness evaluation of food products using a chromogenic gas sensor based on organic dyes S.M. Iordache, A. M. Iordache, G. C. Zarnescu, C. Ceaus, L. Popovici, A. Tiliakos <i>Uni. of Bucharest, Faculty of Physics, 3Nano-SAE Research Center, Romania</i>
P4-6	Silver-Coated Gold Nanorod-Based Logic Operations Facilitated by Etching and Coating Processes Yanmei Zhang, Xinjian Yang and Zhiqiang Gao <i>Dep. of Chemistry, Nat. Uni. of Singapore, Singapore 117543</i>
P4-7	All-in-one fabrication process of a rigidified flexible depth probe Jolien Pas, Marc Ferro, George Malliaras <i>Dep. of Bioelectronics, Ecole Nat.e Supérieure des Mines de Saint-Etienne</i>
P4-8	Computational Study of a New Deep Submicron RADFET Dosimeter Design Based on Graphene Nanoribbon for Radiotherapy Applications K. Tamersit, F. Dieffal and D. Arar <i>LEA, Dep. of Electronics, Uni. of Batna, Batna 05000, Algeria.</i>
P4-9	A handheld colorimeter for determining salivary alpha-amylase activity and its applications to stress assessment Hsien-Yi Hsiao, Chih-Chi Chou, Richie L. C. Chen, Tzong-Jih Cheng* <i>Dep. of Bio-industrial Mechatronics Engineering, College of Bio-Resources and Agriculture, Nat. Taiwan Univ., Taipei, Taiwan</i>
P4-10	Electrochemical assay for rapid and universal detection of bacteria or virus using lipid nanovesicles Chan Ho Chung ^{1,2,7} , Yoon-Aa Choi ^{1,7} , Dongeun Yong ³ , Heungsung Sung ⁴ , Dae-Sub Song ⁵ , Seungjoo Haam ⁶ , Bong Hyun Chung ¹ <i>1. BioNano Health Guard Research Center, Daejeon 34141, Republic of Korea</i> <i>2. Nanobiotechnology Major, School of Engineering, University of Science and Technology (UST), Daejeon 34141, Republic of Korea</i> <i>3. Department of Laboratory Medicine and Research Institute of Bacterial Resistance, Yonsei University College of Medicine, Seoul, Republic of Korea</i> <i>4. Department of Laboratory Medicine, University of Ulsan College of Medicine and Asan Medical Center, Seoul 05505, Republic of Korea</i> <i>5. College of Pharmacy, Korea University Sejong Campus, Sejong 30019, Republic of Korea</i> <i>6. Department of Chemical and Biomolecular Engineering, Yonsei University, Seoul 03722, Republic of Korea</i>
P4-11	NEMS Bio-Sensor on a Chip for A Single-Molecule Detection A. Öztürk ¹ , <i>Department of Mechatronics Engineering, Marmara UniversityGöztepe Campus, 34722, Kadıköy, Istanbul, TURKEY</i>
P4-12	Carbon aerogel-based bioelectrodes for amperometric detection of phenolic compounds V. Munteanu ^{1*} , V. Danciu ¹ , L.C. Cotet ¹ , A.I. Cadis ² , L.M. Muresan ¹ <i>¹Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Arany Janos 11, 400028 Cluj-Napoca, Romania</i> <i>²"Raluca Ripan" Institute for Research in Chemistry, Babeş Bolyai University, Fântânele 30, 400294 Cluj-Napoca, Romania</i>
P4-13	Graphene Oxide Modified Disposable Sensors for Electrochemical Detection of Nucleic Acids D. Isin, E. Eksin and A. Erdem* <i>Ege University, Faculty of Pharmacy, Analytical Chemistry Department, 35100, Izmir, TURKEY</i>