

12th International Symposium on Flexible Organic Electronics (ISFOE19), 1-4 July 2019, Thessaloniki, Greece

PROGRAM

08:00-9:00	Registration
09:00-09:30	Welcome and Opening Remarks S. Logothetidis, ISFOE19 Chairman
09:30-11:00	Workshop on OLAE Materials 1 (Room: Crystal Hall) Chair: M. Gioti, Department of Physics, Aristotle University of Thessaloniki, Greece
09:30-10:00 KEYNOTE	Design of Hybrid Organic-Inorganic 4G Solar Cells S.R.P. Silva Advanced Technology Institute, University of Surrey, Guildford GU2 7XH, Surrey, UK
10:00-10:15	Atmospheric Plasma Deposition of Atomically Smooth, Conformal, and Ultrathin Low-k Polymer Insulating Layers D.A. Ondo ¹ , F. Loyer ¹ , F. Werner ² , N.D. Boscher ¹ ¹ Material Research and Technology, Luxembourg Institute of Science and Technology, Luxembourg, ² Physics and Materials Science Research Unit, University of Luxembourg, Luxembourg
10:15-10:30	Truly low temperature reductive sintering of printed copper nanoparticle ink for highly conductive thin films on flexible substrates F. Hermerschmidt ¹ , D. Burmeister ¹ , G. Ligorio ¹ , E. J. W. List-Kratochvil ^{1,2} ¹ Humboldt-Universität zu Berlin, Institut für Physik, Institut für Chemie, IRIS Adlershof, Berlin, Germany ² Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany
10:30-10:45	Conducting And Stretchable Pedot:Pss Electrodes: Role Of Additives On Self-Assembly, Morphology And Transport E. Dazon ^{1,2} , X. Sallenave ² , C. Plesse ² , T. D. Anthopoulos ¹ , A. Amassian ³ , F. Goubard ² ¹ Laboratory for Advanced Materials & Applications, King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Saudi Arabia ² Laboratoire de Physicochimie des Polymères et des Interfaces, Université de Cergy-Pontoise, 95000 Cergy, France ³ Department of Materials Science and Engineering, North Carolina State University, Raleigh, N.C., 27695, USA
10:45-11:00	Inkjet printed organic inverter A. Łuczak, J. Jung Department of Molecular Physics, Lodz University of Technology, Żeromskiego 116 90-924 Łódź, Poland
11:00-11:30	Coffee Break ISFOE19 Posters-Exhibition - Networking
11:30-13:30	Workshop on OLAE Materials 2 (Room: Crystal Hall) Chair: E. Lidorikis, University of Ioannina, Greece
11:30-12:00 INVITED	A comparative study of transparent conductive coatings for flexible and stretchable applications M. Top, S. Hinze, D. Mai, J. Fahlteich Fraunhofer FEP, Winterbergstrasse 28, Dresden, Germany
12:00-12:30 KEYNOTE	Designing High Performing Semiconducting Polymers I. McCulloch King Abdullah University of Science and Technology, Saudi Arabia
12:30-12:45	Flexible cellulose nanofibrils - (reduced) graphene oxide films and porous composites for dielectric and electrochemical storage application Y. Beeran ^{1,2} , V. Bobnar ³ , M. Finžgar ⁴ , S. Thomas ² , V. Koko ¹ ¹ University of Maribor, Faculty of Mechanical Engineering, Maribor, Slovenia, ² International and Inter University Centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kerala, India ³ Jozef Stefan Institute, Condensed Matter Physics Department, Ljubljana, Slovenia, ⁴ University of Maribor, Faculty of Chemistry and Chemical Engineering, Maribor, Slovenia
12:45-13:00	Organic/inorganic Composite Conductive Films for Electromagnetic Shielding V. Barsukov, O. Butenko, V. Khomenko, I. Senyk, O. Chernysh Department for Electrochemical Power Engineering & Chemistry, Kyiv National University of Technologies and Design, Kyiv Ukraine
13:30-15:00	Lunch Break ISFOE19 Posters-Exhibition-Networking
15:00-17:45	Workshop on OPVs & Perovskite PVs 1 (Room: Crystal Hall) Chair: A. Walker, University of Bath, UK

15:00-15:30 KEYNOTE	Innovative charge transport interlayers for >16% organic solar cells T. Anthopoulos King Abdullah University of Science and Technology (KAUST), KAUST Solar Centre, Saudi Arabia	15:30-18:00	Workshop on Open Innovation & Standardization 1 (Room: Timber Hall 1) Chair: K. Fostiropoulos, Helmholtz Zentrum Berlin, Germany
15:30-16:00 INVITED	Afterglow Effects as a Tool to Screen Emissive Non-Geminate Charge Recombination Processes in Organic Photoactive Composites P. E. Keivanidis¹, G. Itskos², W. Zhang^{3,4}, F. Laquai⁴, C. Brabec^{5,6}, G. Floudas^{7,8}, I. McCulloch^{3,4} ¹ Dept. Mechanical Engineering, Materials Science and Engineering, Cyprus University of Technology, Cyprus ² Dept. Physics, University of Cyprus, Cyprus, ³ KAUST Solar Center, Physical Sciences and Engineering Division (PSE), Kingdom of Saudi Arabia, ⁴ Dept. Chemistry and Centre for Plastic Electronics, Imperial College London, London, UK, ⁵ I-MEET, Friedrich-Alexander-University Erlangen-Nuremberg, Erlangen, Germany, ⁶ Bavarian Center for Applied Energy Research (ZAE Bayern), Erlangen, Germany, ⁷ Max Planck Institute for Polymer Research, Mainz, Germany, ⁸ Department of Physics, University of Ioannina, Ioannina, Greece	15:30-16:00 INVITED	VAMAS - Developing internationally accepted best practice in materials characterization F.A. Castro , G. Koutsourakis, S. Wood, J.C. Blakesley National Physical Laboratory, Hampton Road, Teddington, United Kingdom
16:00-16:30 INVITED	Controlling Microstructure, Morphology and Defects in Perovskite Solar Cells T. Du¹, C.T. Lin¹, J.R. Durrant^{2,3}, M.A. McLachlan¹ ¹ Department of Materials and Centre for Plastic Electronics, Imperial College London, London, UK ² Department of Chemistry and Centre for Plastic Electronics, Imperial College London, London, UK ³ SPECIFIC IKC, College of Engineering, Swansea University, Swansea, UK	16:00-16:30 INVITED	Graphene and Related 2D Materials: Measurement and Standardization A. J. Pollard Surface Technology Group, National Physical Laboratory, National Physical Laboratory, Hampton Road, Teddington, United Kingdom
16:30-16:45	Reliable electrical characterization and modeling of organic LEDs and solar cells with doped layers and internal interfaces S. Jenatsch¹, S. Altazin¹, U. Aeberhard¹, S. Züfle^{1,2}, C. Kirsch², E. Knapp², M. T. Neukom^{1,2}, B. Ruhstaller^{1,2} ¹ Fluxim AG, Katharina-Sulzer-Platz 2, Winterthur, Switzerland ² Institute of Computational Physics, ZHAW, Wildbachstr. 21, Winterthur, Switzerland	16:30-17:00 INVITED	Materials Information Management for Organic Electronics M. Kogia , D. Dykeman ANSYS/GRANTA, United Kingdom
16:45-17:00	Selective deposition of silver and copper thin film electrodes for organic optoelectronics S. Varagnolo¹, H. Amari^{2,3}, R. A. Hatton¹ ¹ Department of Chemistry, University of Warwick, Coventry, CV4 7AL, U.K. ² Department of Physics, University of Warwick, Coventry, CV4 7AL, U.K. ³ Current Address: School of Engineering & School of Physical Sciences, University of Liverpool, L69 3GQ, Liverpool, U.K.		
17:00-17:15	Optimization of fully printed ITO-free semi-transparent OPV devices P.Prodromidis¹, C.Kapopoulos¹, A.Zachariadis¹, E.Mekeridis², S.Panos¹, A.Laskarakis¹, S.Logotheidis¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² Organic Electronic Technologies, Thessaloniki, Greece	17:00-17:15 PROJECT	Intelligent Manufacturing of Flexible & Printed Electronics Industry to Boost Digital Transformation (H2020 FoF Smartline) A. Laskarakis, S. Logotheidis Nanotechnology Lab LTFN and Center of Organic and Printed Electronics Hellas (COPE-H), Aristotle University of Thessaloniki, Thessaloniki, Greece
17:15-17:30	New materials for OPV applications S. Aivali¹, L. Tsimpouki¹, C. Anastasopoulos¹, A. K. Andreopoulou^{1,2}, J. K. Kallitsis^{1,2} ¹ Department of Chemistry, University of Patras, Rio 26504, Greece ² Chemical Engineering Science Foundation of research Technology Hellas FORTH/ICE-HT Patras 26504, Greece	17:15-17:30 PROJECT	Multiscale modelling and characterization to optimize the manufacturing processes of Organic Electronics materials and devices (Horizon 2020 Project Cornet) A. Laskarakis, S. Logotheidis Nanotechnology Lab LTFN and Center of Organic and Printed Electronics Hellas (COPE-H) Aristotle University of Thessaloniki, Thessaloniki, Greece
17:30-17:45	Study of Organic Photovoltaic Devices fabricated on a Cluster-OVPD Pilot Line M. Chatzidis , G. Nomikos, C. Gravalidis, A. Papamichail, A. Laskarakis, S. Logotheidis Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece	17:30-17:45 PROJECT	LightCoc; Building an ecosystem for the up-scaling of lightweight, multi-functional concrete and ceramic materials and structures P. Angelopoulos¹, C. Panagiotopoulou², S. Badogiannis², M. Taxiarchou¹, I. Paspaliaris¹ ¹ School of Mining and Metallurgical Engineering, NTUA ² School of Civil Engineering, NTUA, Greece
		17:45-18:00 PROJECT	InPulse: Indium-Phosphide Pilot Line for up-scaled, low-barrier, self-sustained, PIC ecosystem P. Bakopoulos¹, E. Mentovich¹, E. Panina², K. A. Williams² ¹ Mellanox Technologies Ltd, Yokneam, Israel ² Dept. Electrical Engineering, Eindhoven University of Technology (TU/e), Eindhoven, The Netherlands

18:00-20:00	Coffee Break ISFOE19 Poster Session 1 (Room: Grand Pietra)
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20:00	DINNER FOR ISFOE19 KEYNOTE AND INVITED SPEAKERS
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08:00-09:00	Registration
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09:00-11:00	Workshop on OLAE Materials 3 (Room: Timber Hall 1) Chair: C. Katan, Univ Rennes, ENSCR, INSA Rennes, CNRS, ISCR, Rennes, FRANCE				
09:00-09:30 KEYNOTE	Challenges in Multiscale Modelling of Organic Electronics X. de Vries ¹ , P. Friederich ² , W. Wenzel ² , R. Coehoorn ¹ , P. A. Bobbert ¹ ¹ Dept Applied Physics, Eindhoven Un. Technology, Netherlands ² Inst. Nanotechnology, Karlsruhe Institute of Technology, Germany	09:30-11:00	Workshop on Open Innovation & Standardization 2 (Room: Timber Hall 2) Chair: M. Kogia, ANSYS, UK		
09:30-10:00 INVITED	Modelling Charge Transport in Organic Semiconductors A.B Walker ¹ , I.R. Thompson ¹ , A.R. Smith ¹ , W.R. Saunders ² ¹ Department of Physics, ² Department of Mathematics University of Bath, Bath BA2 7AY, UK	09:30-10:00 INVITED	Printed Batteries – New Applications and Funding M. Krebs R&D department, VARTA Microbattery, Ellwangen, Germany	10:00-11:15	I3D Conference Session 1 (Room: Dock Six 2) Chairs: George Kenanakis
10:00-10:30 INVITED	Nature and Role of Charge-Transfer States in Organic Solar Cells V. Coropceanu School of Chemistry and Biochemistry and Center for Organic Photonics and Electronics, Georgia Institute of Technology, Atlanta, Georgia	10:00-10:30 INVITED	EQUINOX and OYSTER: results from two projects with different strategies to data production and data sharing P. Kavouras, C. A. Charitidis School of Chemical Engineering, National Technical University of Athens, Greece	10:00-10:30 INVITED	Integrated Electronic Functionalities in 3D Printed Products M. Giesbers TNO, Holst Centre, The Netherlands
10:30-10:45	Multi-scale modeling of organic electronic materials and devices E. Lidorikis Department of Materials Science & Engineering, University of Ioannina, Greece	10:30-10:45 PROJECT	Life-time considerations on additively manufactured medical devices K. Foremny ¹ , U. P. Froriep ² , T. Doll ^{1,2} ¹ Hannover Medical School, ORL Department, Hannover, Germany ² Fraunhofer Institute for Toxicology and Experimental Medicine, Translational Biomedical Engineering, Hannover, Germany	10:30-11:00 INVITED	Laser Induced Forward Transfer: an advanced tool for 3D bioprinting I. Zergioti National Technical University of Athens, Greece
10:45-11:00	First-Principles DFT study on the adsorption of prototype organic semiconducting materials on Ag surface A. Stamateri, S. Logothetidis Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Thessaloniki, Greece	10:45-11:00 PROJECT	Maturolife: Quality of life through quality of design D. Shaw ¹ , J. Sellars ¹ , A. Copley ² ¹ A-Gas Electronic Materials, UK ² Coventry University, UK		
				11:00-11:15	Adhesion improvement of conductive poly-lactic acid filament 3D printed onto polyethylene terephthalate fabric through chemical bonding P. A. Eutonnat-Diffo ^{1,2,3} , Y. Chen ³ , J. Guan ³ , V. Nierstrasz ² , X. Zeng ¹ , A. Cayla ¹ , C. Campagne ¹ 1 ENSAIT, GEMTEX – Laboratoire de Génie et Matériaux Textiles, France 2 Textile Materials Technology, Department of Textile Technology, Faculty of Textiles, Engineering and Business, University of Borås, Sweden 3 Soochow University, College of Textile & Clothing Engineering, China

11:00-11:30	Coffee Break ISFOE19 Posters-Exhibition-Networking
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11:30-13:30	Workshop on In-Line & Real-time Metrology and Quality Control (Room: Timber Hall 2) Chair: M. Gioti, Department of Physics, Aristotle University of Thessaloniki, Greece	11:30-13:45	I3D Conference Session 2 (Room: Dock Six 2) Chairs: Merijn Giesbers
11:30-12:00 INVITED	R2R and S2S Equipment for Advanced Manufacturing of Flexible Electronics S. Stan VDL Enabling Technologies Group, The Netherlands	11:30-12:00 INVITED	2,3,4D printing: the next industrial revolution S. Magdassi The Hebrew University of Jerusalem, Israel
12:00-12:30 INVITED	Upscaling R2R-Production Technology for flexible Electronics N. Meyer, H. Rooms, T. Exlager, S. Madadi and T. Kolbusch Coatema Coating Machinery GmbH, Germany	12:00-12:30 INVITED	3D printed nanocomposite structures for energy and environmental applications G. Kenanakis FORTH IESL, Greece
12:30-13:00 INVITED	Production of Efficient Printed Organic Photovoltaic Panels with High Quality E.M Pechlivani, E. Mekeridis, C. Varlamis, V. Kyriazopoulos, S. Fachouri, A. Galatsopoulos, V. Karagkiozaki Organic Electronic Technologies P.C. (OET), Greece	12:30-13:00 INVITED	Inkjet fluid characterization and in-flight drop analysis using the FUJIFILM Dimatix Materials Printer R. J A Ramirez FUJIFILM Dimatix, Materials Deposition Group, United States of America

13:00-13:30 INVITED	Industrial-scale metrology for automated in-line and in-situ quality control C. Camus LayTec AG, Germany	13:00-13:15	Photo-responsive polymers in 3D printing M. Gastaldi ¹ , A. Fin ¹ , N. Barbero ¹ , I. Roppolo ² , A. Chiappone ² , S. Bordiga ¹ , M. Zanetti ¹ , F. Frascella ² , C. Barolo ¹ ¹ Dip. Chimica e Centro Interdipartimentale NIS, Università di Torino, Italy ² Dip. Scienza Applicata e Tecnologia, Politecnico di Torino, Italy
		13:15-13:30	3D printed chitosan-TiO₂ scaffolds for the photocatalytic degradation of amoxicillin in wastewater C. Graiff ¹ , L. Bergamonti ¹ , C. Bergonzi ² , L. Elviri ² , P.P. Lottici ³ , R. Bettini ² ¹ Dept. Chemistry, Life Sciences and Environmental Sustainability, University of Parma, Italy ² Food and Drug Department, University of Parma, Italy ³ Department of Mathematical, Physical and Computer Sciences, University of Parma, Italy
		13:30-13:45	3D Inkjet-printing of Smart Luminaires F. Kemper ¹ , M. Reif ¹ , T. Schönfelder ¹ , L. Pohle ^{1,2} , S. Wolleb ¹ , E. Beckert ¹ , R. Eberhardt ¹ , A. Tünnermann ^{1,2} ¹ Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Germany ² Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Germany

13:30-15:00	Lunch Break-Networking - BUSINESS FORUM 1 ISFOE19 Posters
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15:00-17:45	Workshop on OTFTs, Sensors & Circuits 1 (Room: Timber Hall 1) Chairs: S. Janietz, Fraunhofer IAP, Germany V. Coropceanu, Georgia Institute of Technology, Atlanta, Georgia	15:00-17:30	Workshop on Graphene & 2D Materials 1 (Room: Timber Hall 2) Chair: V. Koutsos
15:00-15:30 KEYNOTE	From Materials to Flexible Electronic Systems Ana Claudia Arias Department of Electrical Engineering and Computer Science, University of California, Berkeley, USA	15:00-15:30 INVITED	Graphene electrically tuneable nonlinear optics G. Soavi Friedrich-Schiller Universität Jena, Germany
15:30-16:00 INVITED	Flexible InGaZnO Thin-Film Transistors: Towards High-Frequency and High-Gain Analog Systems on Plastic L. Petti ¹ , G. Cantarella ¹ , N. Münzenrieder ² ¹ Sensing Technology Laboratory, Faculty of Science and Technology, Free University of Bolzano-Bozen, Italy ² Flexible Electronics Laboratory, Sensor Technology Research Centre, University of Sussex, UK	15:30-15:45	Quasienergy spectrum of graphene subjected to a bicircular laser field J. Derlikiewicz, M. Suster, K. Kotur, F. C. Velez, K. Krajewska, J. Z. Kamiński Faculty of Physics, University of Warsaw, Poland
		15:45-16:00	Conductive inks based on graphene V. Georgakilas University of Patras, Greece
16:00-16:15	Optimization of poling conditions for fully printed flexible piezoelectric devices P. Gaucchi, M. Stella, C. Delgado, P. Lacharouse Eurecat, Centre Tecnològic de Catalunya, Av. d'Ernest Lluch 36, Parc Científic TecnoCampus, Barcelona, Spain	16:00-16:15	Toward disorder-free growth of thin metal films on graphene by magnetron sputtering N. Pliatsikas Linköping University, Linköping, Sweden
16:15-16:30	Transparent, low voltage, all-organic Field-Effect Transistors on plastic and compliant substrates S. Lai, G. Casula, A. Bonfiglio, P. Cosseddu Department of Electrical and Electronic Engineering, University of Cagliari, Italy	16:15-16:30	Low-Temperature Synthesis and Spectroscopy of Fractal Graphene N. Margaryan ¹ , N. Kokanyan ^{2,3} , E. Kokanyan ^{4,5} ¹ Nat. Polyt. University Armenia, Dept. of Physics, Armenia, ² Univ. de Lorraine, Lab. Matériaux Optiques, Photonique et Systèmes, France, ³ Lab Matériaux Optiques, Photonique et Systèmes, Univ. Paris-Saclay, France ⁴ Armenian State Pedagogical University, Armenia, ⁵ Inst. Physical Research, Nat. Academy of Sciences Armenia
16:30-16:45	High mobility OTFT devices; material formulation, process development and applications K. Prabha Rajeev, S. Pandya, S. Ogier Neudrive Limited, Neville Hamlin Building, Thomas Wright Way, NetPark, Sedgefield, UK	16:30-16:45	Monitoring water splitting at graphene edges in real-time: why humidity is essential for the lubricity of graphitic materials P. Restuccia, ¹ M. Ferrario, ¹ and M. C. Righi ^{1,2} ¹ Physics Department, University of Modena and Reggio Emilia, and ² CNR Institute of Nanoscience, Modena, Italy
16:45-17:00	Efficient combination of Roll-to-Roll compatible techniques towards the large area deposition of a polymer dielectric film and the solution-processing of an organic semiconductor for the field-effect transistors fabrication on plastic substrate T. Kaimakamis ¹ , C. Koutsaki ¹ , A. Zachariadis ¹ , A. Papamichail ¹ , C. Kamaraki ¹ , S. Fachouri ² , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² Organic Electronic Technologies P.C. (OET), Thessaloniki, Greece	16:45-17:00	Graphene synthesis by tribochemical reaction of methane with nickel: an ab initio molecular dynamics study M. C. Righi University of Modena and Reggio Emilia, and CNR Institute of Nanoscience Italy
17:00-17:15	Side-chain engineering in solution-processed small molecular bulk heterojunction ambipolar thin-film transistors and complementary-like inverters Dongil Ho, Choongik Kim Department of Chemical and Biomolecular Engineering, Sogang University, Republic of Korea	17:00-17:15	Nitrogen-Doped Graphene Quantum Dots Exhibiting Fluorescence from Ultraviolet to Infrared Region J. Gomez CEITEC Masaryk University, Czech Republic
17:15-17:30	Flexible Printed Electronics: Sensors & Antennas S. Fachouri ¹ , G. Kromidas ² , E. Mekeridis ¹ , E.M Pechlivanis ¹ , S. Logothetidis ² ¹ Organic Electronic Technologies P.C. (OET), Thessaloniki, Greece	17:15-17:30	Modeling thermionic Graphene/Silicon Schottky IR photodetectors S. Doukas ¹ , P. Mensz ² , N. Myoung ³ , I. Vangelidis ³ , A. C. Ferrari ⁴ , I. Goykhman ² , E. Lidorikis ¹ ¹ Department of Materials Science and Engineering, University of Ioannina, Ioannina, Greece

	² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece		² Department of Electrical Engineering, Technion-Israel Institute of Technology, Haifa, Israel ³ Department of Physics Education, Chosun University, Gwangju, Korea ⁴ Cambridge Graphene Centre, University of Cambridge, Cambridge, UK
17:30-17:45	The Influence of Nitrates Ligand on the Performances of Solution Processed Top-gate IGZO Thin Film Transistor S. Kumaran ¹ , M.-T. Liu ¹ , K.-Y. Lee ² , Yian Tai ¹ ¹ Department of Chemical Engineering, National Taiwan University of Science and Technology, Taiwan ² Department of Engineering Science and Ocean Engineering, National Taiwan University, Taiwan		


18:00-18:30	Coffee Break ISFOE19 Posters-Exhibition-Networking		
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18:30 - 20:30	PLENARY SESSION NANOTECHNOLOGY 2019 (Room: Grand Petra)		
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18:30-19:00	Introduction by Prof. S. Logothetidis, NANOTECHNOLOGY 2019 Chairman		
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19:00-19:30 PLENARY		Green Chemistry for Green Energy Prof. Mario Leclerc Laval University, Canada	
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19:30-20:00 PLENARY		Novel nanomaterials Prof. Sokrates Pantelides Vanderbilt University, USA	
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20:00-20:30 PLENARY		Intelligent, Recognitive, Nanoscale Systems for Advanced Therapeutic Agent Targeting and Delivery Prof. Nicholas Peppas The University of Texas at Austin, USA	
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20:30	NANOTECHNOLOGY 2019 DRINKS & OFFICIAL DINNER PORTO PALACE CONFERENCE CENTRE & HOTEL - ROOF GARDEN		
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08:00-09:00		Registration	
		09:00 - 11:00	Workshop on Graphene & 2D Materials 2 (Room: Timber Hall 2) Chairs: E. Lidorikis, University of Ioannina, Greece
09:30-11:00	Workshop on OTFTs, Sensors & Circuits 2 (Room : Timber Hall 1) Chair: L. Petti, Faculty of Science and Technology, Free University of Bolzano-Bozen, Italy	09:00-09:30 KEYNOTE	Growth and microscopy of 2D nitride layers B. Pécz Hungarian Academy of Sciences (MTA EK MFA) Hungary
09:30-10:00 INVITED	Charge Transport and Mobility Edge in Organic and Polymer Transistors A. Dodabalapur, W. Xiao The University of Texas at Austin, Austin, USA	09:30-10:00 INVITED	Selected carbon allotropes: graphene and fullerene in organic electronic J. Jung Lodz University of Technology, Poland
10:00-10:15	Blade Coating of p-Doped Small-Molecule/Polymer Blends for High Mobility Organic Thin-Film Transistors A. Basu ¹ , M. R. Niazi ² , L. K. San ³ , A. F. Paterson ¹ , O. Boltalina ³ , T. D. Anthopoulos ¹ ¹ Division of Physical Sciences Engineering, KAUST, Kingdom of Saudi Arabia ² Department of Chemistry, McGill University, Canada ³ Department of Chemistry, Colorado State University, USA	10:00-10:30 INVITED	Two-dimensional materials and their heterostructures R. Kitaura Department of Chemistry, Nagoya University, Japan
10:15-10:30	Physics-Based Compact and SPICE Modelling for a 3-Dimensional Inkjet-Printed Flexible Organic FETs and Circuits S. Jung ¹ , J. Kwon ¹ , G. Horowitz ² , Y. Bonnassieux ² , S. Jung ^{1,3} ¹ i-Lab, Pohang University of Science and Technology (POSTECH), Korea ² LPICM, CNRS UMR 7647, École polytechnique, France ³ Dept. of Creative IT Engineering, POSTECH, Korea		
10:30-10:45	Printed all-organic transistor on paper: towards biodegradable circuits G. Casula, S. Lai, A. Bonfiglio, P. Cosseddu Department of Electrical and Electronic Engineering, University of Cagliari, Italy	10:30-10:45	New 3D Janus Tectons equipped with Photoswitchable Chromophores : Looking for simultaneously controlling optical properties and 2D self-assembly D. Kreher Sorbonne Université, France
10:45-11:00	Site-selective growth of self-assembled monolayer for Improving performance of organic thin-film transistors Po-Ying Chuang, Meng-Tieh Liu, Yian Tai Department of Chemical Engineering, National Taiwan University of Science and Technology, Taiwan	10:45-11:00	Solid State Supercapacitors Made by Gel Electrolytes Tseung-Yuen Tseng Institute of Electronics, National Chiao Tung University, Hsinchu 300, Taiwan
11:00- 11:30		Coffee Break ISFOE19 Posters-Exhibition-Networking	
11:30-13:15	Workshop on Graphene & 2D Materials 3 (Room: Timber Hall 2) Chairs: G. Deligeorgis	11:30-13:45	Women in Nano Science & Technology Special Workshop 1 (Room : Dock Six 2) Chair: Prof. T. Choli-Papadopoulou, Department of Chemistry, Aristotle University of Thessaloniki S.G. Avataneo, Group Material Labs, Centro Ricerche Fiat, Italy
11:30-12:00 INVITED	Combining nanomaterials towards ubiquitous next generation electronics G. Deligeorgis FORTH IESL, Greece	11:30-11:45	Opening and words of welcome
12:00-12:15	Extraordinary Conductivity in Polymer Composites by In-situ Reduction of Segregated Graphene Oxide Networks Alan B. Dalton University of Sussex, UK	11:45-12:15 INVITED	Two-Photon Absorption of Solvated Organic Chromophores: a Synergy between Experiment and Theory C. Katan Univ Rennes, ENSCR, INSA Rennes, CNRS, ISCR, Rennes, FRANCE
12:15-12:30	Printable Graphene/natural rubber composites for adhesive strain gauges P. J. Lynch University of Sussex, United Kingdom	12:15-12:45 INVITED	Growing Functional Nanosurfaces for Organic Electronics L. Sosa Vargas ¹ , D. Kreher ¹ , F. Mathevet ¹ , I. Arfaoui ² , Q. Fernez ¹ , C. Fiorini-Debuisschert ³ , F. Charra ³ ¹ Institut Parisien de Chimie Moléculaire, Sorbonne University, Paris, FRANCE ² MONARIS Laboratory, Sorbonne University Paris, FRANCE ³ SPEC-LEPO Laboratory CEA – Paris Saclay, FRANCE
12:30-12:45	Surface-Confined Fluorescent self-assembled molecular monolayer on graphene D. Kreher Sorbonne Université, France		

12:45-13:00	Exotic morphology of MoS₂ and WS₂ for various applications E. Mijowska West Pomeranian University of Technology, Poland	12:45-13:15 INVITED	Thermoelectric and Optical Properties of PEDOT:PSS thin films M. Kong, L. A. Pérez, O. Zapata, M. Campoy-Quiles, A. Mihi, J. S. Reparaz, and M. I. Alonso Institut de Ciència de Materials de Barcelona, ICMA-B-Csic, Campus de la UAB, Spain
13:00-13:15	Interfacial assembly of liquid-exfoliated nanosheets S. P. Ogilvie University of Sussex, United Kingdom		
		13:15-13:45 INVITED	Density Functional Theory On Nanostructures With Potential Catalytic Applications Ch.E. Lekka ¹ , M. Gialampouki ² ¹ Department of Materials Science & Engineering, Univ. of Ioannina, Ioannina, Greece ² Institute of Condensed Matter and Nanosciences, Université catholique de Louvain, Belgium

13:30-15:00	Lunch Break ISFOE19 Posters-Exhibition-Networking – BUSINESS FORUM 2
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15:00-16:45	Workshop on Smart Textiles (Room : Timber Hall 1) Chair: L. Van Langenhove, Ghent University	15:00-18:00	Workshop on OLEDs 1 (Room : Timber Hall 2) Chair: C. Boeffel, Fraunhofer IAP, Germany, K. Fostiropoulos, Helmholtz Zentrum Berlin, Germany	15:00-17:45	Women in Nano Science & Technology Special Workshop 2 (Room : Dock Six 2) Chair: C. Lekka, University of Ioannina, Greece
15:00-15:30 INVITED	Creating business for wearable technology L. Van Langenhove ¹ , B. Malengier ¹ , S. Stevens ² , J. Coenraets ² , M. Emmanouil ³ , J. Detand ³ Ghent University, Technologiepark 70A, 9052 Gent, Belgium ¹ Center for Textile Science and Engineering, ² DO1, ³ Industrial Design Center	15:00-15:30 INVITED	Direct observation of optical modes in Nanostructured OLEDs Franky So Department of Materials Science and Engineering NC State University, Raleigh, USA	15:00-15:30 INVITED	Printed and Flexible Receive Coils for Magnetic Resonance Imaging: from research to market Joseph Corea, Miki Lustig and Ana Claudia Arias Berkeley, EECS, USA
15:30-16:00 INVITED	Revisiting Ferroelectric Nylons for Application in Solution Processed Electronics S. Anwar ¹ , K. Asadi ¹ Max-Planck-Institute for Polymer Research, Ackermannweg 10, 55128 Mainz, Germany	15:30-16:00 INVITED	Materials development for full solution processed OLEDs Silvia Janietz Fraunhofer Institute for Applied Polymer Research, Potsdam Golm, Geiselbergstr. 69 Germany	15:30-16:00 INVITED	Sustainability Driven: Electronic Integration with Materials into Novel Components S.G. Avataneo ¹ , N. Li Pira ² ¹ Group Material Labs - Project Management ² Group Material Labs – Physical Analysis CRF S.C.p.A., Corso Settembrini, 40, 10135 Torino (Italy)
16:00-16:15	Highly conductive flexible and 3D metallization on flexible and textile substrates via StarJet Technology Z. Shu ¹ , B. Gerdes ¹ , M. Fechtig ¹ , R. Zengerle ^{1,2} , P. Koltay ^{1,2} ¹ Laboratory for MEMS Applications, IMTEK - Department of Microsystems Engineering, University of Freiburg, Germany. ² Hahn-Schickard-Gesellschaft für angewandte Forschung e.V., Germany				
16:15-16:30	Microfabrication of conjugated polymer actuators on textiles and study of textile structures for scaling up the actuation M. Asadi Miankafshe ¹ , J. Gabriel Martinez Gil ³ , S. Mehraeen ³ , T. Bashir ^{1,2} , E.W.H. Jager ³ , N.K. Persson ¹ ¹ Swedish School of Textiles, Smart Textiles, University of Borås, Sweden ² Swedish Centre for Resource Recovery, Univ. Borås, Sweden ³ Bionics and Transduction Science, Department of Physics, Chemistry and Biology (IFM), Linköping University, Sweden	16:00-16:30 INVITED	Developing a tool kit to directly modify conjugated polymer backbones M. Heeney Dept. Chemistry, Imperial College London, South Kensington, U.K.	16:00-16:30 INVITED	A Novel Virtual Cluster for Nanosensors F. Vardar-Sukan Sabanci University, SUNUM Nanotechnology Research Centre, Istanbul, Turkey
16:30-16:45	Engrafted sensors for biomedical wearable applications S. C. Freitas, J. Tavares, O. V. Karavai, H. Alves Department of Physics and CICECO, University of Aveiro, Campus Universitário de Santiago, Portugal	16:30-16:45	Overcoming specific challenges on transparent OLEDs in Roll-to-Roll manufacturing Dongxiang Wang, Jacqueline Hauptmann, Christian May Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Dresden, Germany	16:30-17:00 INVITED	Do science and technology have a gender? Maria Kogia Granta Design, UK

16:45-17:00	<p>Graphene based smart textile electronic devices G. Rajan, E. Torres Alonso, M. F. Craciun Ana. I. S. Neves College of Engineering, Physical Sciences and Mathematics, University of Exeter, UK</p>	16:45-17:00	<p>Flexible integrated Electrochromic-OLED Devices for High Transparent Smart Glasses and Displays M. Pugliese^{1,2}, V. Maiorano¹, G. Gigli^{1,2}, P. Cossari¹ ¹ CNR Nanotec, Istituto di Nanotecnologia, Italy ² Università del Salento, Dipartimento di Matematica e Fisica Ennio De Giorgi, Italy</p>		
17:00-17:15 PROJECT	<p>Effect of Pre-Treatments in Electroless Copper Plating of Smart Textiles and Impact on the Quality Attributes Latha Krishnan, Daryl Fox, Golnaz T. P. Azar, Shakiela Begum, Andrew J. Coble Functional Materials Group at Coventry University, Institute of Future Transport and Cities, United Kingdom</p>	17:00-17:15	<p>High Efficiency Solution Processable Polymer OLEDs: Manufacturing and Characterisation V. Kyriazopoulos¹, M. Gioti², C. Varlamis¹, E. Mekeridis¹, E.M Pechlivani¹, S. Logothetidis² ¹ Organic Electronic Technologies P.C. (OET), Thessaloniki, Greece ² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</p>	17:00-17:30 INVITED	<p>Chondrogenesis and osteogenesis by short protein regions T. Choli-Papadopoulou, S. Karoulas, M. Pitou, R. Papi School of Chemistry, Lab. Of Biochemistry, Aristotle University of Thessaloniki, Greece</p>
		17:15-17:30	<p>Developments of High Performance InP-based Quantum Dot Light-Emitting Diodes (QLEDs) for the future display technology Yohan Kim, Benjamin Heyne, Hyung Seok Choi, André Geßner and Armin Wedel Functional Materials and Devices, Fraunhofer Institute for Applied Polymer Research, Germany</p>		
		17:30 -17:45	<p>Spatially Correlated Magnetic Field Effects in Organic Light-Emitting Diodes W. J. Pappas, A. Asadpoordarvish, R. Geng, D. R. McCamey ARC Centre of Excellence in Exciton Science, University of New South Wales, School of Physics, Australia</p>	17:30 -17:45	<p>Nanoformulations of ZnO NPs and Eugenol or Pelargonic acid for agricultural applications Ch. Gkanatsiou¹, M. Kalomoiris², N. Vouroutzis³, U. Menkissoglou-Spiroudi², C. Dendrinou-Samara¹ ¹ Inorganic Chemistry Lab, Chemistry Department, Aristotle University of Thessaloniki, Greece, 54124 Thessaloniki, Greece ² Pesticide Science Laboratory, Faculty of Agriculture, School of Agriculture, Forestry and Environment, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece ³ Solid State Physics Section, Department of Physics, Aristotle University of Thessaloniki, Greece, 54124 Thessaloniki, Greece</p>
		17:45-18:00	<p>Interface Engineering to Enhance the Efficiency of Organic Light-Emitting Transistors M. Prosa¹, E. Benvenuti¹, M. Pasini², U. Giovannella², M. Bolognesi¹, F. Galeotti², M. Muccini¹, S. Toffanin¹ ¹ Consiglio Nazionale delle Ricerche (CNR), Istituto per lo Studio dei Materiali Nanostrutturati (ISMN), Bologna, Italy ² Consiglio Nazionale delle Ricerche (CNR), Istituto per lo Studio delle Macromolecole (ISMac), Milano, Italy</p>		
<p>20:00 NANOTECHNOLOGY 2019 BEACH PARTY at the Beach Bar RIVIERA Start of transport from Porto Palace Hotel at 18:00, Start of Return from Beach Bar at 23:00</p>					

08:00-09:00 Registration

09:00-11:00	Workshop on OPVs & Perovskite PVs 2 (Room: Crystal Hall) Chair: E. Pechlivani, OET	09:00-11:00	Workshop on Biosensors & Bioelectronics 1 (Room: Timber Hall 1) Chair: Francesco De Angelis		
09:00-09:30 KEYNOTE	Metal Halide Perovskites: A New Class of Semiconductors C. Katan ¹ , B. Traore, ² M. Kepenekian, ¹ L. Pedesseau, ² J. Leveillee, ³ A. Schleife, ³ A. Neukirch, ⁴ S. Tretiak, ⁴ J.-C. Blancon, ^{4,5} A. Mohite, ^{4,5} C. Stoumpos, ^{6,7} M. Kanatzidis, ⁵ J. Even ² ¹ Univ Rennes, ENSCR, INSA Rennes, CNRS, ISCR, FRANCE ² Univ Rennes, INSA Rennes, CNRS, Institut FOTON, FRANCE ³ Department of Materials Science and Engineering, University of Illinois at Urbana-Champaign, USA ⁴ Los Alamos National Laboratory, USA ⁵ Dept. Chemical and Biomolecular Engineering, Rice University, USA ⁶ Department of Chemistry, Northwestern University, USA ⁷ Dept. Materials Science & Technology, University of Crete, Greece	09:00-09:30 KEYNOTE	Interfacing with the Brain Using Organic Electronics G. Malliaras University of Cambridge, UK	09:30-11:00	I3D Conference Session 3 BIO (Room: Dock Six 2) Chairs: Aylin Sendemir-Urkmez
09:30-10:00 INVITED	Novel Optoelectronic Properties of Lead Halide Perovskite Nanocrystals G. Itskos ¹ , P. Papagiorgis ¹ , A. Manoli ¹ , M. Athanasiou ¹ , M. Sergides ² , A. Othonos ² , G. Papaparaskaeva ³ , T. Krasia-Christoforou ³ , C. Bernasconi ^{4,5} , M. I. Bodnarchuk ^{4,5} , M. V. Kovalenko ^{4,5} ¹ Experimental Condensed Matter Physics Laboratory, Department of Physics, University of Cyprus, Cyprus ² Lab. Ultrafast Science, Department of Physics, Univ. of Cyprus, Cyprus ³ Department of Mechanical and Manufacturing Engineering, University of Cyprus, Cyprus ⁴ Empa, Switzerland ⁵ Lab Inorg. Chemistry, Dept. Chemistry & Applied Biosciences, Switzerland	09:30-10:00 INVITED	Physical Modulation of Tubulin Self-Assembly for Microtubule-Based Nanomaterials and Therapies Djamel Eddine Chafai Czech Academy of Sciences, Czechia	09:30-10:00 INVITED	Functional inks for co-axial 3D bioprinting C. Toncelli Empa Lerchenfeldstrasse 5, 9014 St. Gallen
10:00-10:15	In-Situ Real-Time Spectroscopic Ellipsometry study on the synthesis and optimization of Perovskite printed films. A.Zachariadis ¹ , C.Kapnopoulos ¹ , C.Kamaraki ¹ , A.Galatsopoulos ² , E.Mekeridis ² , S.Kassavetis ¹ , C.Gravalidis ¹ , A.Laskarakis ¹ , S.Logothetidis ¹ ¹ Lab for Thin Films - Nanobiomaterials - Nanosystems & Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki, Greece ² Organic Electronic Technologies, Greece	10:00-10:30 INVITED	Conductive elastomer bioelectronics based on nanoparticulate PEDOT R.A. Green Imperial College London, United Kingdom	10:00-10:30 INVITED	Bioinspired Heart Valve Prosthesis made by Silicone Additive Manufacturing F.B.Coulter ¹ , M. Schaffner ¹ , J.A. Faber ¹ , A.Rafsanjani ¹ , R.Smith ² , H. Appa ² , P. Zilla ^{2,3} , D. Bezuidenhout ^{2,3} , A.R. Studart ¹ ¹ Complex Materials, Department of Materials, ETH Zürich, Switzerland ² Strait Access Technologies, South Africa ³ Cardiovascular Research Unit, University of Cape Town, South Africa
10:15-10:30	Fully printed flexible organic solar cells based on non-fullerene PBDB-T:ITIC system Z.Kyroudis ¹ , C.Kapnopoulos ¹ , A.Zachariadis ¹ , E.Mekeridis ² , S.Panos ¹ , D.Papadopoulou ¹ , C.Gravalidis ¹ , A.Laskarakis ¹ , S.Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² OET, Thessaloniki, Greece				
10:30-10:45	Computer-assisted molecular design of non-toxic solvents for high performance organic solar cell processing J. Wang ¹ , I. Rodriguez-Donis ² , S. Thiebaud-Roux ² , V. Gerbaud ³ , O. A. Ibraikulov ¹ , N. Leclerc ⁴ , T. Heiser ¹ ¹ Laboratoire ICUBE, Université de Strasbourg, CNRS, France ² Université de Toulouse, INP, INRA, LCA, France ³ Lab.Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, France ⁴ Laboratoire ICPEES, Université de Strasbourg, CNRS, France	10:30-10:45	Utilisation of microbiosensors for monitoring phenols in whisky fermentation process S.D. Psoma The Open University Walton Hall, United Kingdom	10:30-11:00 INVITED	Alginate tubular scaffolds as models of the neural tube Evangelos Delivopoulos University of Reading, UK
10:45-11:00	Printed Perovskite Solar Cells Manufacturing and Lifetime Testing A. Galatsopoulos, C. Varlamis, E. Mekeridis, V. Kyriazopoulos, S. Fachouri, E.M Pechlivani Organic Electronic Technologies P.C (OET), Thessaloniki, Greece	10:45-11:00 PROJECT	Electrochemical and acoustics methods of detection proteases at surfaces T. Hianik Comenius University, Slovakia		

11:00-11:30 Coffee Break ISFOE19 Posters-Exhibition - Networking				
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11:30-13:30	Workshop on OPVs & Perovskite PVs 3 (Room: Crystal Hall) Chair: K. Fostiropoulos, Helmholtz Zentrum Berlin, Germany				
11:30-12:00 INVITED	Computational design of novel double perovskites G. Volonakis, F. Giustino Department of Materials, University of Oxford, Oxford, UK	12:00-13:30	Workshop on Biosensors & Bioelectronics 2 (Room: Timber Hall 1) Chair: R.A. Green	12:00-13:15	I3D Conference Session 4 BIO (Room: Dock Six 2) Chairs: C.Toncelli
12:00-12:30 INVITED	Fast sputter-deposition of high-performance MoOx-based transparent electrodes on PET for flexible photovoltaics T. Dimopoulos ¹ , M. Bauch ¹ , R. A. Wibowo ¹ , N. Bansal ¹ , G. Ligorio ² , E. List-Kratochvil ^{2,3} , C. Linke ⁴ , E. Franzke ⁴ , J. Winkler ⁴ ¹ AIT Austrian Institute of Technology, Center for Energy, Photovoltaic Systems, Austria ² Institut für Physik, Institut für Chemie & IRIS Adlershof, Humboldt-Universität zu Berlin, Germany ³ Helmholtz-Zentrum Berlin Materialien und Energie, Germany ⁴ Plansee SE, Austria	12:00-12:30 INVITED	Organic Neurotechnologies: Materials and Devices F. Biscarini ¹ , M. Bianchi ¹ , M. Di Lauro ¹ , S. Carli ¹ , E. Zucchini ¹ , M. Murgia ¹ , L. Fadiga ¹ Istituto Italiano di Tecnologia, Center for Translational Neurophysiology of Speech and Communication, Italy	12:00-12:30 INVITED	Optimization of cell viability in bioprinting Aylin Sendemir-Urkmez Ege University, Tyrkey
12:30-12:45	Optical characterization of perovskite materials using Spectroscopic Ellipsometry J-P. Gaston, C. Eypert, M. Stchakovsky HORIBA Scientific – Palaiseau, France	12:30-12:45	Heterojunction metal oxide transistors for real-time bio-chemical sensing W. Alghamdi KAUST, Kingdom of Saudi Arabia	12:30-13:00 INVITED	BIOINKS - Lynchpin of 3D-Bioprinting: Opportunities and Challenges V. Prasad Shastri, Aurelien Forget, Yawei Gu Institute for Macromolecular Chemistry, University of Freiburg, Freiburg, D-79104, Germany
12:45-13:00	Analysis of electronic bands in metal halide perovskite single crystals via angle-resolved photoelectron spectroscopy M. Sajedi ^{1,2} , D. Marchenko ¹ , M. Krivenkov ^{1,2} , A. Varykhalov ¹ , J. Sánchez-Barriga ¹ , O. Rader ¹ ¹ Helmholtz Zentrum Berlin für Materialien und Energie, Germany ² Department of physics, Potsdam University, Germany	12:45-13:00	Smartphone imaging for (duplex-)lateral flow assays C. Ruppert Medical & Life Sciences, Hochschule Furtwangen, Germany		
13:00-13:15	Optimization of laser ablation processes for semitransparent flexible organic photovoltaic modules C. Kapnopoulos ¹ , E. Mekeridis ² , A. Zachariadis ¹ , P. Prodromidis ¹ , Z. Kyrouridis ¹ , A. Laskarakis ¹ , C. Gravalidis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² OET, Thessaloniki, Greece	13:00-13:15	Transparent, graphene-based Organic Charge-Modulated Field-Effect Transistor for chemical sensing S.Lai University of Cagliari, Italy	13:00-13:15	Reconstruction of tomographic images by the vectorization technique applied to the manufacture of prostheses through rapid prototyping G. K. B. Coutinho Universidade Federal do Rio Grande do Norte, Brazil
13:15-13:30	Significant Broadband Photocurrent Enhancement by Epsilon-Near-Zero Gold Nanostructures Photocathodes Shih-Hsuan Huang, Jian-Ming Chiu, Yian Tai Dept. Chemical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan				

13:30-15:00 Lunch Break ISFOE19 Poster Session-Exhibition – Networking -BUSINESS FORUM 3				
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15:00-17:00	Workshop on OLEDs 2 (Room : Crystal Hall) Chair: G. Volonakis, University of Oxford, UK	15:00-17:00	Workshop on Biosensors & Bioelectronics 3 (Room : Timber Hall 1) Chair: M. Bianchi	15:00-16:15	Workshop on Graphene & 2D Materials 4 (Room : Dock Six 2) Chair: Jaroslav Jung
15:00-15:30 INVITED	High resolution ESJET printing as a new tool for AM OLED fabrication C. Boeffel ¹ , M. Gensler ¹ , S. Kröpke ¹ , A.J. Kronemeijer ² , T. H. Ke ³ , P. Obene ⁴ ¹ Fraunhofer IAP, Functional Materials and Devices, Germany ² TNO/Holst Centre, Netherlands	15:00-15:30 INVITED	3D plasmonic nanostructures for bio-sensing in living cells F. De Angelis Italian Institute of Technology, Italy	15:00-15:30 INVITED	Electronic properties engineering of two-dimensional materials G. Kopidakis University of Crete, Greece

	³ imec, Belgium ⁴ PVI Precision Varionic International, UK				
15:30-16:00 INVITED	Can exciplex diffuse? Hwang-Bum Kim, Jang-Joo Kim Department of Materials Science and Engineering, Seoul National University, Seoul 151-744, South Korea	15:30-15:45	Sugar-tethered and Zwitterionic PEDOTs for Virus Detections and Antifouling Biosensing T. Goda Tokyo Medical and Dental University, Japan	15:30-15:45	Graphene-based flexible triboelectric nanogenerators G. Pace ¹ , A. Ansaldo ¹ , F. Bonaccorso ^{1,2} ¹ Istituto Italiano di Tecnologia, Graphene Labs, Genova, Italy ² BeDimensional Spa, Genova, Italy
		15:45-16:00	PVD-derived silver nanopillars for plasmonic sensors M. Suster, P. Wróbel Faculty of Physics, University of Warsaw, Poland	15:45-16:00	Wafer-Scale MoS₂ Films from Epitaxial Precursor with Tunable Thickness and Properties Xiangming Xu, Husam N. Alshareef Materials Science and Engineering, King Abdullah University of Science and Technology (KAUST), Saudi Arabia
16:00-16:15	Flexible top-emitting OLED with a dielectric Bragg reflector as multifunctional layer C.T. Prontera ¹ , M. Pugliese ^{1,2} , V. Maiorano ¹ , G. Gigli ^{1,2} ¹ CNR Nanotec, Istituto di Nanotecnologia, via Arnesano 73100, Lecce, Italy ² Università del Salento, Dipartimento di Matematica e Fisica Ennio De Giorgi, Lecce, Italy			16:00-16:15	SiO₂ microspherical resonators refining 2D semiconductors PL emission: fine-tuning in WSe₂ and intensity enhancement in InSe D. Andres-Penares University of Valencia, Spain
16:15-16:30	All inkjet-printed bright OLEDs for disposable lab-on-a-chip systems F. Kemper ¹ , A. Makhinia ^{1,2} , E. Beckert ¹ , R. Eberhardt ¹ , A. Tünnermann ^{1,2} ¹ Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Germany ² Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Germany				
16:30-16:45	Tandem Organic Light-Emitting Diodes Fabricated by an All-wet Lamination Process Y. Ozawa, M. Morimoto, S. Naka, and H. Okada. Graduate School of Science and Engineering for Research, University of Toyama, Japan				
16:45-17:00	Maskless two-dimensional patterning of organic light-emitting diodes using ultra-short pulsed laser ablation M. Wiczorek, A. Philipp, C. Keibler-Willner, C. May Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Dresden, Germany				
17:00-18:00	Young Researcher Award for Best Oral and Best Poster Presentations Closing Remarks and Discussion End of ISFOE19				

POSTERS

POSTER SESSION Monday 1 July (17:30-20:00): Poster Display & Presentations Tuesday 2 July, Wednesday 3 July, Thursday 4 July: Poster Display Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs	
P1-1	Electroactive Composite Materials Towards Energy Applications P. Damlin ¹ , M. Suominen ^{1,2} , C. Kvarnström ¹ ¹ Department of Chemistry, University of Turku, Vatselankatu 2, FI-20014 Turku, Finland, ² University of Turku Graduate School, Doctoral Programme in Physical and Chemical Sciences, Turku, Finland
P1-2	Laser sintering of Cu@Ag core-shell nanoparticle ink for flexible electronics application A.I. Titkov ¹ , O.A. Logutenko ¹ , A. Vorobyev ¹ , N.V. Bulina ¹ , S.G. Baev ² , V.P. Bessmeltsev ² , N.Z. Lyakhov ¹ ¹ Institute of Solid State Chemistry and Mechanochemistry SB RAS, Kutateladze St. 18, Novosibirsk, 630128, Russia ² Institute of Automation and Electrometry SB RAS, Academician Koptyug Av. 1, Novosibirsk, 630090, Russia
P1-3	The mixtures of naphthalenediimides with conductive polymers Arkadiusz Selerowicz, Jaroslaw Jung, Anna Stefaniuk-Grams Department of Molecular Physic, Lodz University of Technology, Zeromskiego 116, Poland
P1-4	Enhanced P3HT aggregation in dielectric polymer solution M. Borkowski ¹ , T. Marszalek ^{1,2} , W. Pisula ^{1,2} ¹ Lodz University of Technology, 116 Zeromskiego Street, 90-924 Lodz, Poland, ² Max Planck Institute for Polymer Research, Ackermannweg 10, 55128 Mainz, Germany
P1-5	Solvent vapor annealing as a promising tool to investigate interactions in blends of organic semiconductors and polymer dielectrics J. Fidyk ¹ , P.W.M. Blom ² , W. Pisula ^{1,2} , T. Marszalek ^{1,2} , J. Michels ² ¹ Lodz University of Technology, 116 Zeromskiego Street, 90-924 Lodz, Poland, ² Max Planck Institute for Polymer Research, Ackermannweg 10, 55128 Mainz, Germany
P1-6	Role of the semiconductor/dielectric morphology on the charge carrier transport M. Brzezinski ^{1*} , P. W.M. Blom ² , W. Pisula ^{1,2} , T. Marszalek ^{1,2} ¹ Lodz University of Technology, Department of Molecular Physics, 116 Zeromskiego Street, 90-924 Lodz, Poland ² Max Planck Institute for Polymer Research, 10 Ackermannweg Street, 55128 Mainz, Germany
P1-7	Hole Transport Control in Fluorene-Amine Copolymers N. T. Lambeva ¹ , D. D. C. Bradley ^{1,2} ¹ Department of Physics, University of Oxford, Parks Road, Oxford, OX1 3PU, UK, ² Department of Engineering Science, University of Oxford, Parks Road, Oxford, UK
P1-8	Molecular Packing and Charge Transport Properties of the Indene C70 Bis-Adducts (IC70BA) electron acceptor Ch. Trapalis, M. Andrea, K. Kaklamanis, E. Lidorikis, D. Papageorgiou Department of Materials Science and Engineering, University of Ioannina, POB 1186, 45110 Ioannina, Greece
P1-9	Computational study of the PCDTBT electron donor for Organic Photovoltaic solar cells M. Andrea, P. Palomino, K. Kordos, E. Lidorikis, D. Papageorgiou Department of Materials Science and Engineering, University of Ioannina, POB 1186, 45110 Ioannina, Greece
P1-10	Investigation of zinc oxide as a UV-barrier for stability improvement of organic solar cells E. Doudis ¹ , A. Galatsopoulos ² , Z. Kyroudis ¹ , A. Zachariadis ¹ , E. Mekeridis ² , C. Kapnopoulos ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² Organic Electronic Technologies P.C.(OET), Greece
P1-11	APOLO: SmArt Designed Full Printed Flexible ROBust Efficient Organic Halide PerOvskite solar cells F. Cecchi ¹ , A.M. Cruz ¹ , F. Brunetti ² , S. Cros ³ , U. Würfel ⁴ , H. Aguas ⁵ , M.K. Nazeruddin ⁶ , M. Hidalgo ⁷ , R. Weyhe ⁸ , L. Sorbello ⁹ , V. Sarrablo ¹⁰ , C. Roupas ¹¹ ¹ LEITAT Technological Center, Terrassa, Spain, ² Dept. Electronics Engineering, Universita degli studi di Roma Torvergata, Roma, Italy ³ Institut National de l'Énergie Solaire CEA – INES, Le Bourget du Lac, France, ⁴ Dept. Dye and Organic Solar Cells, Fraunhofer Institute for Solar Energy Systems ISE, Freiburg, Germany, ⁵ CENIMAT:3N Universidade Nova de Lisboa, Caparica, Portugal, ⁶ Chemistry and Chemical Engineering Section, École Polytechnique Fédérale de Lausanne, Switzerland, ⁷ ARKEMA, Colombes Cedex, France, ⁸ ACCUREC-RECYCLING GMBH, Krefeld, Germany, ⁹ GREATCELL SOLAR ITALIA SLR, Roma, Italy, ¹⁰ Flexbric SL, Els Hostalets de Pierola, Spain, ¹¹ RELATIONAL SA, Athens, Greece
P1-12	Organic diodes with graphene electrodes R. Udovytyska, J. Jung Department of Molecular Physic, Lodz University of Technology, Zeromskiego 116, Poland
P1-13	Spatially Correlated Magnetic Field Effects in Organic Light-Emitting Diodes W. J. Pappas, A. Asadpoordarvish, R. Geng, D. R. McCamey ARC Centre of Excellence in Exciton Science, University of New South Wales, School of Physics, UNSW Sydney, NSW 2052, Australia
P1-14	Polymeric Iridium Metallocomplexes as Phosphors for Polymeric Light Emitting Diodes K. Andrikopoulos ¹ , A. K. Andreopoulou ¹ , C. Anastasopoulos ^{1,2} , J. K. Kallitsis ^{1,2} Department of Chemistry, University of Patras, 26504 Patras, Greece, ² Institute of Chemical Engineering Sciences, FORTH/ICE-HT, P.O. Box 1414, 26504 Patras,
P1-15	Optical and structural characterization of terpolymer active materials for white OLEDs (WOLEDs) K. Papadopoulos ¹ , V. Kyriazopoulos ² , M. Gioti ¹ , S. Kassavetis ¹ , A. K. Andreopoulou ³ , J. K. Kallitsis ³ , A. Laskarakis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece ² Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, GR-57001 Thessaloniki, Greece ³ Department of Chemistry University of Patras, University Campus, Rio-Patras GR-26504, Greece
P1-16	Optical characterization of efficient with selective red emission organic light-emitting diodes L. Panagiotidis ¹ , D. Tselekidou ¹ , V. Kyriazopoulos ² , M. Gioti ¹ , A. K. Andreopoulou ³ , J. K. Kallitsis ³ , C. Gravalidis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece ² Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, GR-57001 Thessaloniki, Greece ³ Department of Chemistry University of Patras, University Campus, Rio-Patras GR-26504, Greece
P1-17	Optical and structural characterization of blended active materials for white OLEDs (WOLEDs) V. Foris ¹ , V. Kyriazopoulos ² , E. Mekeridis ² , M. Gioti ¹ , A. Laskarakis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece ² Organic Electronic Technologies P.C. (OET), Antoni Tritsi 21B, GR-57001 Thessaloniki, Greece
P1-18	Thin films copper (I) bromide as hole –transporting material for perovskite solar cells M. Ganchev, R. Gergova, G. Popkirov, P. Vitanov Central Laboratory of Solar Energy and New Energy Sources, Bulgarian Academy of Sciences, 72 Tzarigradsko Chaussee Blvd, 1784 Sofia, Bulgaria
P1-19	Analysis of electronic bands in metal halide perovskite single crystals via angle-resolved photoelectron spectroscopy Maryam Sajedi ^{1,2} , Dmitry Marchenko ¹ , Maxim Krivenkov ^{1,2} , Andrei Varykhalov ¹ , Jaime Sánchez-Barriga ¹ , Oliver Rader ¹ ¹ Helmholtz Zentrum Berlin für Materialien und Energie, Hahn-Meitner Platz 1, 14109, Berlin, Germany ² Department of physics, Potsdam University, Am Neuen Palais 10, D-14415, Potsdam, Germany
P1-20	Structural and electronic properties of multifunctional carbon composites of organometal halide perovskite S. Klejna AGH University of Science and Technology, Academic Centre for Materials and Nanotechnology, A.Mickiewicza 30, 30-059 Kraków, Poland
P1-21	Low Voltage Organic Thin Film Transistor Using New Polyurethane Triblock Copolymer Dielectric

	Dongkyu Kim, Choongik Kim Department of Chemical and Biomolecular Engineering, Sogang University, Mapo-gu, Seoul, 04107 Republic of Korea
P1-22	Comparison of solution – processed organic field-effect transistors on rigid and flexible parylene C substrates Zofia Waliszewska ^{1*} , Tomasz Marszałek ^{1,2} , Wojciech Pisula ^{1,2} ¹ Lodz University of Technology, 116 Żeromskiego Street, 90-924 Lodz, Poland ² Max Planck Institute for Polymer Research, Ackermannweg 10, 55128 Mainz, Germany
P1-23	Design of polymer thin dielectrics for printed transistor applications S. Janietz ¹ , A. Gassmann ² , E. Reis Simas ² , H. von Seggern ² ¹ Fraunhofer Institute for Applied Polymer Research, 14476 Potsdam-Golm, Germany ² Materials and Geo-Science, Technische Universität Darmstadt, 64287 Darmstadt, Germany
P1-24	Low-cost all inkjet-printed digital microfluidics platform F.Kemper ¹ , L.Pohle ^{1,2} , E.Beckert ¹ , R.Eberhardt ¹ , A.Tünnermann ^{1,2} ¹ Fraunhofer Institute for Applied Optics and Precision Engineering (IOF), Germany ² Institute of Applied Physics, Abbe Center of Photonics, Friedrich Schiller University Jena, Germany
P1-25	Effect of small molecule:polymer insulating blends on performance of flexible OFETs based on R2R compatible solution-processing methods S. Grammatikos, S. Kassavetis, C. Gravalidis, A. Laskarakis, S. Logothetidis Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece
P1-26	Graphene on textiles; A step towards wearable triboelectric nanogenerator Kavya Sreeja Sadanandan, Ana I. S. Neves, Monica F. Craciun College of Engineering, Mathematics and Physical Sciences, University of Exeter, EX4 4QF, Exeter, United Kingdom
P1-27	Development and Modeling of a Flexible Optical Shape Sensor for Prosthetic Applications Oguz Yetkin ¹ , Yesim Bul ¹ , Baris Oguz Gurses ² , Begum Savasan ³ , Aylin Sendemir ¹ ¹ Department of Bioengineering, Ege University, 35040 Izmir, Turkey ² Department of Mechanical Engineering, Ege University, 35040 Izmir, Turkey ³ Nailtronics Ltd. Ege Üniversitesi Bilim-Teknoloji Uygulama ve Arastırma Merkezi EBILTEM, 35100 Izmir, Turkey
P1-27	Fully Reverse-offset printed TFT using Single Walled Carbon Nanotubes on flexible substrate M.H. Jung ¹ , I.Y. Kim ² , D.S. Kim ¹ ¹ Research Institute of Printed Electronics & 3D Printing, Hanbat National University, Korea ² Department of Printed Electronics, Advanced Manufacturing Systems Research Division, Korea Institute of Machinery & Materials (KIMM), Korea
P1-28	Fully Reverse-offset printed TFT using Single Walled Carbon Nanotubes on flexible substrate M.H. Jung ¹ , I.Y. Kim ² , D.S. Kim ¹ ¹ Research Institute of Printed Electronics & 3D Printing, Hanbat National University, Korea ² Department of Printed Electronics, Advanced Manufacturing Systems Research Division, Korea Institute of Machinery & Materials (KIMM), Korea
COMMON POSTER SESSION Monday 1 July (17:30-20:00), Tuesday 2 July (15:00-18:00): Poster Display & Presentations Wednesday 3 July, Thursday 4 July: Poster Display I3D (common with NN19 W5)	
I3D-1	Cell viability and morphology in 3D bioprinted cell-laden gelatin/alginate hydrogel based constructs Z.Chakim ^{1,2} , S. Dermenoudis ¹ , V.Karagiozaki ² , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² BL Nanobiomed P.C. Thessaloniki, Greece
I3D-2	Melting of Hydroxyapatite by Selective Laser Sintering for fabrication of Bioceramic Scaffolds N.V. Bulina ¹ , A.I. Titkov ¹ , S.G. Bae ² , S.V. Makarova ¹ , V.P. Bessmeltsev ² , N.Z. Lyakhov ¹ ¹ Institute of Solid State Chemistry and Mechanochemistry SB RAS, Kutateladze St. 18, Novosibirsk, 630128, Russia ² Institute of Automation and Electrometry SB RAS, Academician Koptyug Av. 1, Novosibirsk, 630090, Russia
I3D-3	Adaptation of a 3D printed hand prosthesis Arthur M. Martins, Fernanda S. Andrade ¹ , Gabriel S. Nascimento ¹ , Gustavo B. Coutinho ¹ , Moises F. Queiroz ¹ , Ricardo A. Valentim ² , Danilo P. Nagem ² Universidade Federal do Rio Grande do Norte (UFRN) – Natal, RN – Brazil
I3D-4	3D Orthosis Printing for amyotrophic lateral sclerosis Danilo Alves Pinto Nagem ¹ , Fernanda de Sena Andrade, Gustavo Kleber Bezerra Coutinho, Moisés Freitas de Queiroz, Gabriel Ian Silva do Nascimento, Arthur Balboa de Medeiros Martins, Emília Márcia Gomes de Souza e Silva, Ana Raquel Rodrigues Lindquist, Ricardo Alexandro de Medeiros Valentim Department of biomedical engineering, Federal University of Rio Grande do Norte, University Campus Lagoa Nova, Brazil
I3D-5	Real-time bioimpedance monitoring of 3D cell-laden hydrogels Y. Jwmah ¹ , E. Bayir ² , B.O. Gürses ³ , A. Şendemir ¹ , (1) Department of Bioengineering, Ege University, 35100 Bornova/Izmir, Turkey (2) Central Research Test and Analysis Laboratory Application and Research Center, Ege University, 35100 Bornova/Izmir, Turkey (3) Department of Mechanical Engineering, Ege University, 35100 Bornova/Izmir, Turkey
I3D-6	3D bio-printed artery wall model development for in vitro Atherosclerosis Research A. Orfanos ¹ , Z.Chakim ^{1,2} , S.Dermenoudis ¹ , V.Karagiozaki ² , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN Aristotle University of Thessaloniki, Greece ² BL Nanobiomed P.C. Thessaloniki, Greece
I3D-7	Inkjet Printed In-Plane Flexible Micro-Supercapacitors Based on Carbon Nanotubes and Two Dimensional Materials Processed by Liquid Phase Exfoliation João Coelho ¹ , Lorcan McKeon ¹ and Valeria Nicolosi ¹ CRANN&Amber, School of Chemistry, Trinity College Dublin, Ireland
I3D-8	Diffusion in Extracellular Matrix Collagen Gels: Application in maturation of 3D-printed skin tissue Dimitrios Bratsios ¹ , Stergios Dermenoudis ² , Varvara Karagiozaki ² , Stergios Logothetidis ² ¹ Department of Chemical Engineering, Aristotle University of Thessaloniki ² Nanotechnology Lab LTFN Aristotle University of Thessaloniki, Thessaloniki, Greece
COMMON POSTER SESSION Monday 1 July (17:30-20:00), Tuesday 2 July (15:00-18:00): Poster Display & Presentations Wednesday 3 July, Thursday 4 July: Poster Display Biosensors & Bioelectronics (common with NN19 W4)	
P4-1	On-chip Modulation of Microtubules by Nanosecond Pulsed Electric Field Integrated on Super-Resolution Microscope D. Havelka ¹ , D. E. Chafai ¹ , A. Klebanovych ² , P. Dráber ² , F. Vostárek ³ , L. Kubínová ³ , M. Cifra ¹ ¹ Institute of Photonics and Electronics of the Czech Academy of Sciences, Chaberská 57, 182 51 Prague, Czechia ² Institute of Molecular Genetics of the Czech Academy of Sciences, Vídeňská 1083, 142 20 Prague, Czechia ³ Institute of Physiology of the Czech Academy of Sciences, Vídeňská 1083, 142 20 Prague, Czechia
P4-2	Development of a novel and rapid aptameric- based nano-diagnostic assay for MERS- CoV Khalid M. Abu-Salah ¹ , Atheer Al Otaiby ¹ Raja Chinnapan ² , Mohammed Zourab ²

	<p>1 Department of Nanomedicine, King Abdulla International Medical Resaerch Center/King Saud Bin Abdulaziz University for health Sciences, national Guard Health Affairs, Riyadh 11481, Saudi Arabia</p> <p>2 Department of Chemistry, Alraisal University, Al Zahrawi Street, Al Maather, Al takhassusi Road, Riyadh 11533, Saudi Arabia</p>
P4-3	<p>The Influence of the Thickness on the Electrical Properties of Electrolyte Gated Organic Field Effect Transistors</p> <p>S. Drakopoulou¹, S. Benaglia⁴, M.D. Lauro², M. Murgia³, C. A. Bortolotti¹, R. Garcia⁴, F. Biscarini^{1,2}</p> <p>1 Dipartement of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy</p> <p>2 Center for Translational Neurophysiology of Speech and Communication (CTNSC), Istituto Italiano di Tecnologia, Ferrara, Italy</p> <p>3 CNR-ISMN, Istituto per lo Studio dei Materiali Nanostrutturati, Bologna, Italy</p> <p>4 Materials Science Factory, Instituto de Ciencia de Materiales de Madrid (ICMM), CSIC, Madrid, Spain</p>
P4-4	<p>PVD-derived silver nanopillars for plasmonic sensors</p> <p>M. Suster, P. Wróbel</p> <p>Faculty of Physics, University of Warsaw, Poland</p>
P4-5	<p>Development of an inkjettable redox-active antibody methylene blue graphene oxide composite for label-free biosensing</p> <p>C. Steininger</p> <p>AIT Austrian Institute of Technology GmbH, Austria</p>
<p>COMMON POSTER SESSION</p> <p>Monday 1 July (17:30-20:00), Tuesday 2 July (15:00-18:00): Poster Display & Presentations</p> <p>Wednesday 3 July, Thursday 4 July: Poster Display</p> <p>Graphene and Related Materials (common with NN19 W5)</p>	
P5-1	<p>Piezoresistive sensors based on 3D percolative networks of graphene nanoplatelets</p> <p>V. Tsouti, V. Kekou, G. Papadimitropoulos, M. Sanopoulou, S. Chatzandroulis</p> <p>Institute of Nanoscience and Nanotechnology, National Center for Scientific Research "Demokritos"</p> <p>Patriarchou Gregoriou E' & 27 Neapoleos Str. 153 41 Ag. Paraskevi, Athens, Greece</p>
P5-2	<p>Quasienergy spectrum of graphene subjected to a bicircular laser field</p> <p>J. Derlikiewicz¹, M. Suster¹, K. Kotur¹, F. C. Velez¹, K. Krajewska¹, J. Z. Kamiński¹</p> <p>1 Faculty of Physics, University of Warsaw, Pasteura 5 Street 02-093 Warsaw, Poland</p>
P5-3	<p>Investigation of structures created by plasma processing and atomic layer deposition of TiO₂ on carbon nanotubes</p> <p>P. Kaushik^{1,2}, M. Eliáš³, J. Michalička³, D. Hegemann⁴, D. Nečas¹, L. Zajíčková^{1,2}</p> <p>1 RG Plasma Technologies, Central European Institute of Technology, Masaryk University, Brno 625 00, Czech Republic</p> <p>2 Department of Physical Electronics, Faculty of Science, Masaryk University, Brno 611 37, Czech Republic</p> <p>3 Central European Institute of Technology, Brno University of Technology, Brno 61200, Czech Republic</p> <p>4 Empa, Swiss Federal Laboratories for Materials Science and Technology, St. Gallen 9014, Switzerland</p>
P5-4	<p>Raman study of laser-induced structural stabilization and charge transfer in reduced CeO_{2-x}/graphene nanocomposite</p> <p>A. Nikolenko¹, V. Strelchuk¹, O.F. Kolomys¹, O. Gnatyuk², P. Kraszkiewicz³, E. Kovalska⁴, W. Mista³, R. Klimkiewicz³, G. Dovbeshko²</p> <p>1 Institute of Semiconductor Physics of NAS of Ukraine, 41 Nauky pr., 03028 Kyiv, Ukraine.</p> <p>2 Institute of Physics of NAS of Ukraine, 46 Nauky pr., 03028 Kyiv, Ukraine.</p> <p>3 Institute of Low Temperature and Structure Research, PAS, Wroclaw, Poland.</p> <p>4 College of Engineering, Mathematics and Physical Sciences, University of Exeter, Exeter EX4 4QF, United Kingdom.</p>
P5-5	<p>Silver and Gold Nanoparticles Deposited on Graphene Layers: Study of Sensing Properties</p> <p>M. Kostejn¹, R. Fajgar¹, J. Kupcik¹, J. Blazevska-Gilev²</p> <p>1 Institute of Chemical Process Fundamentals of the CAS, v.v.i., Department of Laser Chemistry, Rozvojova 2/135, Prague, Czech Republic</p> <p>2 Ss. Cyril and Methodius University, Faculty of Technology and Metallurgy, Ruger Boskovic 16, Skopje, North Macedonia</p>
P5-6	<p>Mechanical Behaviours of Graphene Nanoflake Inserted between Cross-Junctional Graphene Nanoribbons: Molecular Dynamics Simulations</p> <p>Jeong-Won Kang</p> <p>Department of Transportation System Engineering, Korea National University of Transportation, South Korea</p>
P5-7	<p>A novel graphene base heterojunction transistor</p> <p>C. Strobel¹, A. Chavarin², M. Albert¹, Ch. Wenger^{2,3}, J.W. Bartha¹</p> <p>1 Technische Universität Dresden, IHM, Nöthnitzer Straße 64, 01187 Dresden, Germany</p> <p>2 IHP, Im Technologiepark 25, 15236 Frankfurt (Oder), Germany</p> <p>3 Brandenburg Medical School Theodor Fontane, 16816 Neuruppin, Germany</p>