08:00 - 09:00	**Registration**
09:00-09:30 **WELCOME** Crystal Hall	**Welcome and Opening Remarks** **S. Logothetidis** **ISFOE23 Chairman**
09:30-11:00 Crystal Hall	**Workshop on OLAE Materials 1** **Chair: A. Laskarakis, LTFN, AUTh**
09:30-10:00 **KEYNOTE**	**Flexible Electronics: Challenges and Opportunities — a Materials Science Perspective** **N. Stingelin** *School of Materials Science and Engineering, Georgia Institute of Technology, U.S.A.*
10:00-10:30 **KEYNOTE**	**Printing Large Area and Scalable Organic and Perovskite Solar Cells** **R. P. Silva** *Advanced Technology Institute, University of Surrey, Guildford, Surrey, GU2 7XH, United Kingdom*
10:30-10:45 **YRA Candidate**	**In-depth study of the rheological behavior and polymer-solvent interaction for P(VDF-TrFE) inks: impact of the solvent polarity and copolymer composition** **J. D. Isasa**, X. Chevalier[2], G. Fleury[1], G. Hadziioannou[1] *[1] Laboratoire de Chimie des Polymères Organiques (LCPO), Université de Bordeaux, France* *[2] Arkema-Piezotech, Rue Henri-Moissan, France*
10:45-11:00	**Sustainable synthesis of conjugated polymers by Suzuki-Miyaura in aqueous environment, and application of their waterborne dispersions** **S. Mattiello[1]**, C. Ceriani[1], M. Scagliotti[2], T. Losi[2], A. Luzio[2], M. Sassi[1], M. Rapisarda[3], L. Mariucci[3], M. Caironi[2], L. Beverina[1] *[1]Department of Materials Science, University of Milano Bicocca, Italy* *[2]Center for Nano Science and Technology@PoliMi, Istituto Italiano di Tecnologia, Italy* *[3]CNR-IMM, Via del Fosso , Italy*
11:00-11:30	**Coffee Break** **ISFOE23 Posters- Exhibition - Networking**
11:30-13:30 Crystal Hall	**Workshop on OLAE Materials 2** **Chairs: M. Gioti, LTFN, AUTh, Greece**
11:30-12:00 **KEYNOTE**	**Single-molecule reliable detections with a large-area electronic interface** **L. Torsi** *Department of Chemistry University of Bari, Italy*
12:00-12:30 **INVITED**	**Multi-layer polymer film extrusion with advanced technologies towards higher barrier and sustainable film applications** **B. Fillon**, M. Skander *ECP4 Avenue de Cortenbergh 71 1000 Brussels, BelgiumIPC, 2 rue Pierre et Marie Curie, Oyonnax FRANCE*
12:30-13:00 **INVITED**	**Synthesis and characterization of highly conductive, printable and stretchable PEDOTs: application to thermoelectricity, photovoltaics and thermotherapy** M. N. Gueye[1,2], A. Schultheiss[2], V. M. Mwalukuku[1], A. Carella[2], J.P. Simonato[2], **R. Demadrille[2]** *[1] University Grenoble Alpes, France.* *[2] Univ. Grenoble Alpes, CNRS, CEA, SyMMES, France*
13:00-13:15	**Detection of Defective Conformations in Ferrotronic PVDF-TrFE copolymers from Raman Spectroscopy** **P. M. Resende[1]**, J.D. Isasa[1], G. Fleury[1], G. Hadziioannou[1] *Laboratoire de Chimie des Polymères Organiques (LCPO), CNRS UMR 5629, University of Bordeaux, ENSCBP, Allée Geoffroy Saint Hilaire, Bâtiment B8, 2nd Floor33615 Pessac C EDEX, France*
13:15-13:30	**Transient delocalization in organic molecular semiconductors** **D. Beljonne** *Laboratory for Chemistry of Novel Materials, University of Mons, Belgium*
13:30-15:00	**Lunch Break** **ISFOE23 Posters- Exhibition - Networking**

15:15-17:00 Crystal Hall	Workshop on OPVs & Perovskite PVs 1 Chairs: S. Jenatsch, Fluxim, R. Silva, Univ. Surrey, UK	15:00-17:00 Timber Hall1	Workshop on Open Innovation & Standardization 1 Chair: S. Kassavetis, LTFN, AUTh
15:15-15:45 INVITED	**Development of Efficient and Stable Perovskite Solar Cells** **E. Tekin**[1,2], N. Babayigit Askin[3], M. Sarıkaya[4], T. A. Tumay[2] *[1] TÜBİTAK MRC, Photonic Technologies Laboratory, 41470 Gebze/Kocaeli, Turkey* *[2] Duzce University, Department of Chemistry, Duzce, Turkey* *[3] TÜBİTAK NMI, Voltage Laboratory, 41470 Gebze/Kocaeli, Turkey* *[4] Gebze Technical University, Department of Physics, 41400 Gebze/Kocaeli, Turkey*	15:00-15:30 INVITED	**From simulation workflows to decision process orchestration: BPMN in the context of material manufacturing** **D. Campagna** *Research and Development Department, ESTECO SPA, Italy*
15:45-16:00	**Three-olor white electroluminescence utilizing perovskite quantum dots and organic emitters for displays** **J. Park** *Integrated Engineering, Department of Chemical Engineering, Kyung Hee Un., Republic of Korea*	15:30-16:00 INVITED	**An industry-driven "innovation ecosystem" for Organic Electronics supported by Materials Informatics** **D. Dykeman**[1], J.-M. Lucatelli[1], V. Etique[1] , A. Laskarakis[2], S. Logothetidis[2], C. Kapnopoulos[2], B. Pelligrini[3] *[1] Ansys, Cambridge, United Kingdom* *[2] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[3]Intellegens, Cambridge, United Kingdom*
16:00-16:15	**Design of optical filters for colored perovskite photovoltaics** A. Cabas Vidani[1], N. Mehmed[1,3], B. Bluelle[1], **D. Braga**[1], S. Jenatsch[1], B. Ruhstaller[1,2] *[1] Fluxim AG, Winterthur, Switzerland; [2] ZHAW, Winterthur, Switzerland; [3] Institut d'Optique Graduate School, Palaiseau*	16:00-16:15	**Open innovation platform for modelling organic electronic material properties, process, and devices** **E. Lidorikis** *Department of Materials Science & Engineering, University of Ioannina Ioannina 45110, Greece*
16:15-16:30 YRA Candidate	**Fine Structure of Excitons in Vacancy-Ordered Double Perovskites** **B. Cucco**, C. Katan, J. Even, M. Kepenekian and G. Volonakis *Univ Rennes, ENSCR, INSA Rennes, CNRS, ISCR - UMR 6226, Rennes, France*	16:15-16:30	**Optimisation of materials and processes design via an Open Translation Environment: the OntoTrans project** **O. M. Roscioni**[1], G. Goldbeck[1], N. A. Konchakova[2], N. Adamovic[3], M. Bueschelberger[4], T. F. Hagelien[5], J. Friis[5] *[1] Goldbeck Consulting LTD, Cambridge, UK, [2] Institute of Surface Science, Helmholtz-Zentrum Hereon, Geesthacht, Germany, [3] TU Wien, Austria, [4] Fraunhofer IWM, Germany.*
16:30-16:45	**Development and Scaleup of Materials Critical for Efficient Organic and Perovskite PV** **H. Richter**, E. A. Jackson, R. M. Carty, H. Ghiassi, D. Bischoff, T. A. Lada, M. J. Ricci, K. Perez Harwood, P. C. Brookes *Nano-C, Inc., 33 Southwest Park, Westwood, MA 02090, USA*	16:30-17:00 INVITED	**Use of ontologies for data documentation and semantic interoperability** **J. Friis**[1], E. Ghedini[2], F. L. Bleken[3], O. M. Roscioni[4], G. Goldbeck[4] *[1]Materials and Nanotechnology, SINTEF Industry, Trondheim, Norway* *[2]Department of Industrial Engineering, University of Bologna, Italy* *[3]Process Technology, SINTEF Industry, Oslo, Norway, [4]Goldbeck Consulting, Cambridge, UK*
16:45-17:00	**Revolution in Sustainable Agriculture: Organic Semitransparent Photovoltaics (OPVs), 3rd Generation PVs** **E. Athanasiadou**, E.Mekeridis, S.Logothetidis *Organic Electronic Technologies 20th KM Thessaloniki - Tagarades, Thermi, Greece*		
17:00-17:30	**Coffee Break** **ISFOE23 Poster Session 1**		
17:30-18:45 Crystal Hall	Workshop on OPVs & Perovskite PVs 2 Chairs: S. Jenatsch, Fluxim, R. Silva, Univ. Surrey, UK	17:30-18:45 Timber Hall1	Workshop on Open Innovation & Standardization 2 Chair: S. Kassavetis, LTFN, AUTh
17:30-18:00 INVITED	**Organic, Polymeric and Hybrid Materials for Organic Electronics** **A. K. Andreopoulou**, K. Andrikopoulos, C. Anastasopoulos, S. Aivali, J. Kallitsis *Department of Chemistry, University of Patras, 26504 Patras, Greece*	17:30-18:00 INVITED	**Convert2Green – Open Innovation Network to accelerate uptake of climate neutral materials in innovative products** **J. Fahlteich**[1], M. Krokida [2] *KETMarket GmbH, Dresden, Germany, National Technical University of Athens, Greece*
18:00-18:30 INVITED	**Automated Manufacturing Production Line for Integrated Printed Organic Photovoltaics** **V. Kyriazopoulos,** E. Mekeridis, S. Logothetidis *Organic Electronic Technologies 20th KM Thessaloniki - Tagarades, Thermi, Greece*	18:00-18:30 INVITED	**Open Innovation, Intellectual Property, and Exploitation of technical ideas** **R. Harrison** *Sonnenberg Harrison Partnerschaft mbB - Intellectual Property and Technology Firm, Germany*
18:30-18:45	**Next generation front sheet for organic photovoltaics** **P. Schlenz** *Fraunhofer FEP, Dresden, Germany*	18:30-18:45	**ESNA – European Sustainable Nanotechnology Association** **V. Smítka** *AMIRES, The Business Innovation Management Institute, z.ú. Prague, Czech Republic*
21:00	**DINNER FOR ISFOE23 KEYNOTE & INVITED SPEAKERS**		

09:00-11:00 Timber Hall1	Workshop on OLAE Materials 3 Chair: A. K. Andreopoulou, Univ. of Patras, Greece		
09:00-09:30 KEYNOTE	**Solid-state electrocaloric cooling, from materials to devices** **G. Hadziioannou** *University of Bordeaux, France*	09:30-11:00 Doc Six 2	**Workshop on Bioelectronics 1 (NN23 & ISFOE23)** **ChairC. Pitsalidis**
09:30-10:00 INVITED	**Towards a comprehensive understanding of charge transfer, release and transport in doped organic semiconductors** **G. D'Avino** *CNRS, Institut Néel, 25 rue des Martyrs, 38042 Grenoble, France*	09:30-10:00 INVITED	**Electrolyte-gated transistors based on ambipolar reduced graphene oxide: the mechanism of transduction of biorecognition events** **F. Biscarini[1,2],** M. Sensi[1], R. Furlan de Oliveira[3,4], M. Berto[1], A. Paradisi[1], C. A. Bortolotti[1], P. Samorì[3] *[1]Department of Life Sciences, University of Modena and Reggio Emilia, via Campi 103, Modena 41125, Italy* *[2]Center for Translational Neurophysiology - Istituto Italiano di Tecnologia, Italy* *[3]Université de Strasbourg, CNRS, ISIS, France* *[4]Brazilian Nanotechnology National Laboratory (LNNano) CNPEM, Campinas 13083–970, Brazil*
10:00-10:30 INVITED	**Permeation barrier coatings for flexible opto-electronic devices** **P. Schlenz**, M. Top *Fraunhofer FEP, Dresden, Germany*	10:00-10:30 INVITED	**Organic electronics for neuromorphic sensing and bio-interfacing** **P. Gkoupidenis** *Max Planck Institute for Polymer Research, Germany*
10:30-10:45	**Detection of molecular hydrogen as a tool to characterize molecular doping of p- and n- type organic semiconductors** F. Pallini, S. Mattiello, S. Mecca, M. Sassi and **L. Beverina** *Department of Materials Science, University of Milano-Bicocca, Milano Italy*	10:30-11:00 INVITED	**Collective effects at the transducing interface of large-area label-free single molecule biosensors** **G. Scamarcio[1,2]**, C. Di Franco[1,2], E. Macchia[3,4],L. Torsi[4] *[1]Dipartimento Interateneo di Fisica, Università degli Studi di Bari Aldo Moro, Italy* *[2]CNR, Istituto di Fotonica e Nanotecnologie, Sede di Bari, Italy* *[3]Faculty of Science and Engineering, Åbo Akademi University, Finland.* *[4]Dipartimento di Chimica, Università degli Studi di Bari Aldo Moro, Italy.*
10:45-11:00	**Carborane-containing materials for organic electronics with novel applications** **F. Aniés[1]**, M. Heeney[1,2] *[1]KAUST Solar Center (KSC) Division of Physical Sciences & Engineering (PSE), KAUST, Saudi Arabia* *[2]Dept Chemistry and Centre for Processable Electronics, Imperial College London, UK*		

11:00-11:30	**Coffee Break** **ISFOE23 Posters- Exhibition - Networking**

11:30-13:30 Timber Hall1	Workshop on OLEDs, OTFTs and Wearables 1 Chair: G. Davino, Institut Neel, CNRS, France	11:00-13:30 Timber Hall2	Computational Modelling (ISFOE23 + NN23) Chair: E. Lidorikis, Univ. of Ioannina, Greece	11:30-13:30 Doc Six 2	Workshop on Bioelectronics 2 (NN23 & ISFOE23) Chair: F. Biscarini
11:30-12:00 INVITED	**Analyzing trap state formation during degradation of thermally-activated delayed fluorescent OLEDs** S. Sem[1], E. Stanzani[1,2], S. Züfle[1], B. Ruhstaller[1,3], **S. Jenatsch[1]** *[1] Fluxim AG, Winterthur, Switzerland* *[2] Intituto de Ciencia Molecular, Univ. Valencia, Spain* *[3] Institute of Computational Physics, Zurich University of Applied Sciences (ZHAW), Switzerland*	11:30-12:00 INVITED	**Ultrafast interactions and saturable absorption in mid-IR graphene modulator** **E. Lidorikis** *Department of Materials Science and Engineering, University of Ioannina, 45110 Ioannina, Greece* *Institute of Materials Science and Computing, University Research Center of Ioannina, 45110 Ioannina, Greece*	11:30-12:00 INVITED	**Conducting polymer scaffolds: A route towards 3D bioelectronics** **C. Pitsalidis** Khalifa University, Abu Dhabi, UAE
12:00-12:15	**Silver and copper screen-printed temperature sensors on flexible substrates** **C. Vaquero[1]**, L. Bilbao[1], A. Pérez[1], H. Villaverde[1], J. Maudes[1], O. Adarraga[1], I. Bustero[1], I. Santamaria[1] *TECNALIA, Basque Research & Technology Alliance (BRTA), Spain*	12:00-12:30 INVITED	**Insights into the electronic properties in organic semiconductors from multiscale simulations** **O. M. Roscioni [1,2]**, M. Ricci[1], C. Zannoni[3], and G. D'Avino[4]. *[1] MaterialX LTD, Bristol, UK; [2] Goldbeck Consulting LTD, Cambridge, UK; [3] Industrial Chemistry*	12:00-12:30 INVITED	**Cell membranes on chip** **A. M. Pappa** *Department of Biomedical Engineering, Khalifa University, PO Box – 127788, Abu Dhabi, United Arab Emirates (UAE)*

12:15-12:30	**Molecular doping of n-type organic semiconductors: tailoring molecular interactions to control thermoelectric properties** **P. Rossi**, N. Pataki, M. Caironi Center for Nano Science and Technology @Polimi, Istituto Italiano di Tecnologia, Milan, Italy		*Department "Toso Montanari", University of Bologna, Italy; [4] Grenoble Alpes University, CNRS, Grenoble, France*		
12:30-12:45	**An organic ultra-fast nanogap-based humidity sensor** **S. Mandal[1]**, H. M. Mantilla[1], K. Loganathan[1], H. Faber[1], A. Sharma[1], M. Gedda[1], E. Yengel[1], D. K. Goswami[2], T. D. Anthopoulos[1] *[1]KAUST Solar Center (KSC), Kingdom of Saudi Arabia* *[2] Organic Electronics Laboratory, Department of Physics, Indian Institute of Technology Kharagpur, KharagpurIndia*	**12:30-13:00 INVITED**	**A digital path for an accelerated computational design of novel membranes in biotechnology** **A. Kneer[1,2]**, W. Kunz[2], S. Barbe[4], B. Nestler[2,3] *[1] TinniT Technologies, Karlsruhe, Germany* *[2] Hochschule Karlsruhe, Univ. Applied Sciences, IDM, Germany* *[3] Karlsruhe Institute of Technology, Inst. Applied Materials–Comp. Materials Science, Germany* *[4] Technical University Cologne, Leverkusen, Germany*	**12:30-13:00 INVITED**	**Materials and Technologies for Hydrogel-based Bioelectronics** **A. Da Silva** *Intelligent Healthcare Technologies Laboratory. Department of Automatic Control and Systems Engineering, Faculty of Engineering, University of Sheffield, Sheffield, UK*
12:45-13:00	**Exploring the Energy Transfer Processes in Hyperfluorescence OLEDs: a Method to Convert Green emission into Blue** **K. Stavrou**, L. G. Franca, A. P. Monkman *Department of Physics, Durham University, UK*				
13:00-13:15	**Contact Resistance of Low-Voltage n-Channel Thin-Film Transistors Based on Three Different Organic Semiconductors** **S. Steffens[1]**, T. Wollandt[1], B. A. R. Günther[2], L. H. Gade[2], B. V. Lotsch[3], H. Klauk[1] *[1]Organic Electronics, Max-Planck Institute for Solid State Research, Stuttgart, Germany; [2]Institute of Inorganic Chemistry, Heidelberg University, Germany;* *[3]Nanochemistry, Max-Planck Institute for Solid State Research, Stuttgart, Germany*	**13:00-13:15**	**Augmented intelligence for next-generation OLED materials innovation** **C. M. Krauter[1]**, H. Abroshan[2], H. S. Kwak[2], A. Chandrasekaran[3], P. Winget[3], M. D. Halls[4] *[1]Schrödinger GmbH, Mannheim, Germany* *[2]Schrödinger Inc, Portland, OR 97204, US* *[3]Schrödinger Inc, New York, NY 10036, US* *[4]Schrödinger Inc, San Diego, CA 92121, US*	**13:00-13:15**	**Practical and mechanistic aspects of mercury – polythymine aptamer interaction** in the design of an electrochemical DNA biosensor **A. Szymczyk[1]**, M. Olszewski[2], R. Ziółkowski[1] ,E. Malinowska[1,3] *[1]Chair of Medical Biotechnology, Faculty of Chemistry, Warsaw University of Technology, Poland* *[2]Chair of Drug and Cosmetics Biotechnology, Faculty of Chemistry, Warsaw University of Technology, Poland* *[3] Centre for Advanced Materials and Technologies CEZAMAT, Warsaw University of Technology, Poland*
13:15-13:30	**OLED R2R Manufacturing and Applications: Lighting in Buildings, Wearables and Automotive** **V. Kyriazopoulos[1]**, E. Mekeridis[1], S. Logothetidis[1,2] *[1] Organic Electronic Technologies (OET), 20th KM Thessaloniki - Tagarades, 57001 Thermi Greece* *[2] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*	**13:15-13:30**	**Understanding the morphology formation of absorber layers in solution-processed solar cells with the help of advanced simulations** **O.J.J. Ronsin[1]**, J. Harting[1,2] *[1]Helmholtz Institute Erlangen-Nürnberg for Renewable Energy, Forschungszentrum Jülich, Germany* *[2]Department of Chemical and Biological Engineering and Department of Physics, Friedrich-Alexander-Universität Erlangen, Germany*	**13:15-13:30**	**BIOASSEMBLER - Bioinspired Assembly of Binders on Multiplex MEMS Biosensors** **P. Saviranta** *VTT, Sensing Solutions Espoo, Finland*

13:30-15:00	**Lunch Break** **ISFOE23 Posters- Exhibition - Networking**

15:00-17:15 Timber Hall1	**Workshop on NanoManufacturing, In-Line Metrology & Quality Control** **Chair: S. Kassavetis, LTFN, AUTh**	**15:00-17:00** Doc Six 2	**Workshop on Bioelectronics 3 (NN23 & ISFOE23)** **Chair: A. da Silva**
15:00-15:30 **INVITED**	**Characterization of perovskite layers using in line compatible electrical and optical techniques** **C, Defranoux[1]**, F. Korsós[1], B. Fodor[1], L. Illés[2], S. Lenk[2], P. Tüttő[1], K. Szőke[1,3], D. Krisztián[1], D. Selmeczi[1] *[1]Semilab Co. Ltd., Prielle Kornélia u. 4/A. H-1117 Budapest, Hungary* *[2]Department of Atomic Physics, Institute of Physics, Budapest University of Technology and Economics, Műegyetem rkp. 3., H-1111 Budapest, Hungary* *[3]Department of Electron Devices, Institute of Electrical Engineering and Informatics, Budapest University of Technology and Economics, Műegyetem rkp. 3., H-1111 Budapest, Hungary*	**15:00-15:30** **INVITED**	**Bioelectronic devices and Therapeutic applications: The selective Vagus nerve stimulation as a paradigm of the new Bioelectronic Medicine era** **D. Koutsouras** *Imec, The Netherlands*
15:30-16:00 **INVITED**	**Achieving High-Volume Roll-to-Roll Manufacturing for Printed Flexible Organic Photovoltaics** **E. Mekeridis1,** V. Kyriazopoulos[1], S. Fachouri, S. Logothetidis[1,2] *[1] Organic Electronic Technologies (OET), 20th KM Thessaloniki - Tagarades, 57001 Thermi* *[2] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*	**15:30-16:00** **INVITED**	**Photo-sensitive bio-hybrid interfaces for biophotonic applications: from plants to human living cells** **M.Ciocca[1]**, T.M. Brown[2], L. Petti[1], P. Lugli[1] *[1] Faculty of Engineering, Free University of Bozen-Bolzano, Italy* *[2] Department of Electronic Engineering, University of Rome Tor Vergata, Italy*
16:00-16:30 **INVITED**	**The importance of Raw Materials in the new Automotive components** **N. Li Pira[1]**, F. Scaffidi Muta[1], G. Deninno[2] *[1] CRF STELLANTIS – Sustainable Raw Materials C.so Settembrini 40, 10135 Turin – Italy* *[2] Università degli Studi di Torino, Science dei Materiali, Via Verdi 8 - 10124 Torino– Italy*	**16:00-16:30** **INVITED**	**In Situ-Actuated, Minimally invasive Spinal Cord Stimulator (MI-SCS): A Ground-breaking Approach in Pain Management** B. J. Woodington[1], V. F. Curto[1], Yi-Lin Yu[2,3], H. Martínez-Domínguez[4], L. Coles[1], **E. H. Salim[2]**, G. G. Malliaras[1] C. M. Proctor[1], D. G. Barone[1,2] [1] Department of Engineering, University of Cambridge, UK [2] Department of Clinical Neurosciences, University of Cambridge, UK [3] Department of Neurological Surgery, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan [4]Tecnológico Nacional de México, Campus Morelia, Morelia, Mexico
16:30-16:45 **EU PROJECT**	**In-line and Real-time Nano-characterization technologies for the high yield manufacturing of Flexible Organic Electronics (RealNano)** **A. Laskarakis** *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*	**16:30-16:45**	**A sprayed graphene Lab-on-PCB platform for multi-analyte detection** **B. Fenech-Salerno**, M. Holicky, C. Yao, F. Torrisi *Department of Chemistry, Imperial College, London, United Kingdom*
16:45-17:00	**Time series analysis of a roll to roll sputter process** **M. Top**, G. Oberschelp, M. Fahland *Fraunhofer FEP, Dresden, Germany*	**16:45-17:00**	**Surface density - dependent orientation of antibody on silicon: TOF-SIMS analysis of noncovalent and covalent immobilization methods** **A. Budkowski[1]**, P. Petrou[2], K. Gajos[1] *[1]Smoluchowski Inst. of Physics, Jagiellonian University, Poland* *[2]INRASTES, National Center for Sci. Research "Demokritos", Greece*
17:00-17:15	**Organic Photovoltaic Systems Embedded in Building Facilities** **D. Papaspanopoulos**, E.Mekeridis, S.Logothetidis *Organic Electronic Technologies 20th KM Thessaloniki - Tagarades, Thermi, Greece*		

17:00-17:30	**Coffee Break** **ISFOE23 Posters- Exhibition - Networking**

PROGRAM
Tuesday 4 July 2023

16th International Symposium on Flexible Organic Electronics (ISFOE23)
3-6 July 2023, Thessaloniki, Greece

ISFOE23
3-6 July 2023

18:30	**PLENARY SESSION**	
18:30-19:00		**Introduction by Prof. S. Logothetidis, ISFOE23 & NN23 Chairman**
19:00 – 19:30 PLENARY		**Prof. Magnus Berggren** **Laboratory of Organic Electronics and Wallenberg Initiative Materials Science for Sustainability, Linköping University, Sweden** **Thiophene-Based Trimers for Evolvable and In-Vivo-Manufactured Electrodes and Electronics**
19:30 – 20:00 PLENARY		**Prof. Peer Fischer** **Heidelberg University & Max Planck Institute for Medical Research, Germany** **Nanostructures in motion: chemical motors and nanorobotic systems**
20:00 – 20:30 PLENARY		**Prof. Sir David King** **Founder & Chair, Centre for Climate Repair at Cambridge University, UK** **The Climate Crisis: The State of Climate Science, and What Must be Done Now**
21:00	**OFFICIAL NANOTEXNOLOGY GALA DINNER** **PORTO PALACE CONFERENCE CENTRE & HOTEL - ROOF GARDEN**	

09:30-11:00 Timber Hall1	Workshop on OPVs & Perovskite PVs 3 Chair: G. Volonakis, University of Rennes, France	09:30-11:00 Timber Hall2	Workshop on Bioelectronics 4 (NN23 & ISFOE23) Chair: D. Koutsouras
09:30-10:00 INVITED	**Recent advances in processing and efficiency determination of organic solar cells for indoor energy harvesting** **J. Ackermann** *CNRS, France*	09:30-10:00 INVITED	**Peripheral nerve interfaces: Non-invasive stimulation using temporal interference and optoelectronics** **M. Donahue** *Linkoping University, Sweden*
10:00-10:30 INVITED	**Design of readily upscalable donor and acceptor materials for photovoltaic applications** **M. Heeney** *Chemical Science, King Abdullah University of Science and Technology, Saudi Arabia*	10:00-10:30 INVITED	**DNA – A bio-organic electronic material** **C. Yumusak** *Linz Institute for Organic Solar Cells (LIOS), Institute of Physical Chemistry, Johannes Kepler University Linz, Altenbergerstr. 69, 4040 Linz, Austria*
10:30-10:45	**Investigation of the effect of photoactivation on printed Organic Photovoltaic devices based on PBDB-T:BTP-12 binary system** **V. Heben[1]**, C. Kapnopoulos[1], C. Stavraki[1], A. Paliagkas[1], E. Doudis[1], D. Tselekidou[1], A. Zachariadis[1], S. Kassavetis[1], E. Mekeridis[2], A. Laskarakis[1], S. Logothetidis[1,2] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), Greece*	10:30-10:45	**A 3D printed wearable piezoelectric platform for energy harvesting from artery pulsation** **I. Sobianin[1]**, S.D. Psoma[1], A. Tourlidakis[2] *[1] School of Engineering & Innovation, The Open University, UK* *[2] School of Engineering, University of Western Macedonia Greece*
10:45-11:00	**On the fly short pulse R2R laser patterning processes for the manufacturing of fully printed semi-transparent organic photovoltaics** **C. Kapnopoulos[1]**, A. Zachariadis[1], E. Mekeridis[2], S. Kassavetis[1], A. Laskarakis[1], S. Logothetidis[1,2] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), Greece*	10:45-11:00	**Fluorescence emission angular dependence on a nanostructured plasmonic grating** **M. Angelini[1]**, E. Manobianco[2], P. Pellacani[2], F. Floris[1], F. Marabelli[1] *[1]Department of Physics, University of Pavia, Pavia, Italy* *[2]Plasmore S.r.l, Italy*

11:00-11:30	**Coffee Break** **ISFOE23 Posters- Exhibition - Networking**

11:30-13:30 Timber Hall1	Workshop on OPVs & Perovskite PVs 4 Chair: Martin Heeney, Chemical Science, KAUST, Saudi Arabia		
11:30-12:00 KEYNOTE	**Strategies for improving the efficiency and stability of organic photovoltaics** **T. Anthopoulos** *King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia)*	12:00-13:30 Timber Hall2	Workshop on Bioelectronics 5 (NN23 & ISFOE23) Chair: M. Donahue
12:00-12:30 KEYNOTE	**High Temperature Quantum Phenomena in Hybrid Perovskites** **F. So[1]**, K. Gundogdu[2] *[1] Dept of Materials Science and Engineering* *[2] Dept of Physics, North Carolina State University, USA*	12:00-12:30 INVITED	**Nanocarbon bioelectronics: From cellular investigations to clinical translation** **R. Garg** *Department of Neurology, Center for Neuroengineering and Therapeutics, University of Pennsylvania, Philadelphia, USA*
12:30-13:00 INVITED	**Opto-electronic properties of novel perovskite-like materials for photovoltaics** **G. Volonakis** University of Rennes, France	12:30-12:45	**Fully-printed glucose sensor for Continuous Monitoring of metabolism in micro-physiological systems** **L. Sappia**, A. B. Aissa, M. Alique, P. Lacharmoise, C. D. Simaõ, A. Moya *Eurecat, Centre Tecnològic de Catalunya, Functional Printing and Embedded Devices Unit, Spain*
		12:45-13:00	**Ultra-sensitive bio-detection by surface plasmon resonance assisted by spectral polarimetry** **G. Dyankov[1,2]**, B. Zhang[3], B. Zhao[3], P. Kolev[1], P. Genova-Kalou[4] *[1]Institute of Optical Materials and Technologies "Acad. J. Malinowski" (IOMT), Bulgarian Academy of Sciences (BAS), Bulgaria*

			[2]*Central Laboratory of Applied Physics, Bulgarian Academy of Sciences, Bulgaria;* [3]*Beihang University, China;* [4]*National Center of Infectious and Parasitic Diseases* Bulgaria
13:00-13:15 **YRA Candidate**	**Design rules for selective deposition of silver by condensation coefficient modulation for application in organic photovoltaics** **S. Abrahamczyk**, P. Bellchambers, R. A. Hatton *Department of Chemistry, University of Warwick, Coventry, UK*	**13:00-13:15**	**Development and characterization of flexible electrochemical biosensors using inkjet printing** **I.E. Chatziioannou**[1], K. Papadopoulos[1], A. Batsi[1], C. Papoulia[2], P. Rampota[1], A. Orfanos[3], V. Karagkiozaki[3], S. Logothetidis[1,3], A. Laskarakis[1] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2]ElMicLab, Department of Physics, Aristotle University of Thessaloniki, Greece* *[3] BL Nanobiomed P.C., 20th Km Thessaloniki – Tagarades Road, Thessaloniki, Greece*
13:15-13:30	**Optimization of electron transport layer for printed organic solar cells for performance and UV-stability enhancement** **E. Doudis**[1], A. Zachariadis[1], C. Kapnopoulos[1], E. Mekeridis[2], D. Tselekidou[1], A. Laskarakis[1], S. Logothetidis[1,2] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), Greece*		

13:30-15:00	**Lunch Break** **ISFOE23 Posters- Exhibition - Networking**

15:00-17:00 Timber Hall1	**Workshop on OLAE Materials 4** **Chair: G. Volonakis, Univ. Rennes, France**			**15:00-17:00** Doc Six 2	**Workshop on Centers of Excellence (NN23 & ISFOE23)** **Chair: G. Hadziioannou, University of Borddeaux** **A. Laskarakis, LTFN, AUTh**
15:00-15:30 **KEYNOTE**	**Crystal Design for Organic Electronic Devices** **J. Anthony** *Center for Applied Energy Research, University of Kentucky, USA*	**15:30-17:00** Timber Hall2	**WS5 Graphene 1** **Chair: G. Deligeorgis**	**15:00-15:20**	**GreeceCentre of Excellence for Organic, Printed Electronics & Nano-Technologies (COPE-Nano)** **S. Logothetidis** *Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece*
15:30-16:00 **INVITED**	**A Novel Rheological Technique for Characterising Mechanical Properties of UV Curing Materials in Photolithography and Printing Applications** **A. Holder**[1], A. Claypole[2], J. Claypole[2], T. Claypole[2] *[1] A-Gas Electronic Materials Ltd* *[2] Welsh Centre for Printing and Coating (WCPC), Swansea University UK*	**15:30-16:00** **INVITED**	**Graphene chemistry: reactions under cover** **L. Vattuone** *Physics Department, University of Genoa & IMEM-CNR, Genoa, Italy*	**15:20-15:40**	**Latvia:Excellence Centre of Advanced Material Research and Technology Transfer (CAMART2)** **A. Anspoks** *Institute of Solid State Physics, University of Latvia, Latvia*
16:00-16:15	**Molecular order improving organic electronic devices: The role of liquid crystals** L.G. Franca[1], C.H. Stadtlober[2], G. Farias[2], J. Eccher[2], H. Bock[3], A.P. Monkman[1], **I.H. Bechtold[2]** *[1]Department of Physics, Durham University, UK;* *[2]Federal University of Santa Catarina, Brazil; [3]Centre de Recherche Paul Pascal, CNRS, Pessac, France*	**16:00-16:30** **INVITED**	**Pressure and temperature dependent photoconductivity in two-dimensional transition metal dichalcogenide transistors** **A. Di Bartolomeo[1,2]**, A. Kumar[1], O. Durante[1,2], A. Sessa[1], E. Faella[1,2], L. Viscardi[1,2], K. Intonti[1,2], F. Giubileo[2], N. Martucciello[2], A. Pelella[3]. *[1] Department of Physics "E.R. Caianiello", University of Salerno, Italy.* *[2] CNR-SPIN, Italy* *[3] Dipartimento di Scienze e Tecnologie, Università del Sannio, Italy*	**15:40-16:00**	**Cyprus: Research and Innovation Centre of Excellence for Illigent, Efficient and Sustainable Energy Solutions (PHAETHON)** **C. Christofides** *University of Cyprus, Cyprus*
16:15-16:30	**Bio-based Printed Circuit Board from Renewable Material** **A.S. Honarbari [1,2]**, P. Cataldi [1], A. Athanassiou [1] *[1]Smart Materials, Istituto Italiano di Tecnologia, Genova, Italy [2]Dipartimento di Informatica*				

	Bioingegneria, Robotica e Ingegneria dei Sistemi (DIBRIS), Università Degli Studi di Genova, Genova, Italy				
16:30-16:45	**Near Infrared Emissions with Open-Shell π-Conjugated Polyradicals** **C. P. Yu**[1], R. Chowdhury[2], Y. Fu[3], P. Ghosh[2], W. Zeng[1], P. Murto[1], A. Rao[2], C. Grey[1], R. Friend[2], H. Bronstein[1] *[1]Yusuf Hamied Department of Chemistry, University of Cambridge, UK* *[2]Department of Physics, Cavendish Laboratory, Cambridge University, UK*	**16:30-16:45**	**Sonification Methods for Enabling Augmented Data Analysis Applied to Graphene Optoelectronics** A. J. Bergren[1], **A. Beltaos**[2], A. van Dijk[2] *[1] Nanotechnology Research Centre, National Research Council of Canada, Alberta, Canada* *[2] Faculty of Science and Technology, Athabasca University, Canada*	**16:00-16:20**	**Poland: Centre of ExcelleNce for nanophotonicS, advancEd Materials and novel crystal growth-Based technoLogiEs (ENSEMBLE3)** **D. Pawlak** *Institute of Electronic Materials Technology, Poland*
16:45-17:00		**16:45-17:00**	**Gold-Decorated Graphene Hybrid Nanomaterial Integrated with A Sensing Device for Agricultural Applications** **L. Dinu**[1], I. Geana[2], A. Baracu[1], M. Stoian[1], O. Brincoveanu[1], C. Pachiu[1] *[1] National Institute for Research and Development in Microtechnologies (IMT Bucharest), Romania* *[2] National Institute for Research and Development for Isotopic and Cryogenic Technologies, Râmnicu-Vâlcea, Romania*	**16:20-17:00**	**Round Table Discussion:** **Building and Governing a successful CoE** - CoE Establishment and Complementary Funding - Challenges during the expansion of Centers - Business Models of CoE and Best Practices - Discussion on Future Collaboration

17:30-18:00	**NANOTEXNOLOGY 2023 Beach Party** **Boarding to buses at Porto Palace Hotel entrance for transfer to Beach Bar RIVIERA** **Please ensure that you have your Beach Party tickets for the dinner and drinks**

09:00-11:00 Crystal Hall	**Workshop on OPVs & Perovskite PVs 5** **Chair: P. Keivanidis, Cyprus University of Technology, Cyprus**			**09:00-11:00** Timber Hall2	**Workshop on Graphene 2 (NN23 & ISFOE23)** **Chair: G. Deligiorgis**
09:00-09:30 **KEYNOTE**	**From materials acceleration to technology acceleration - closing the gap for printed photovoltaics** **J. A. Hauch[1,2]**, C. J. Brabec[1,2], H. Egelhaaf[1,2], T. Heumüller[1,2] *[1]Forschungszentrum Jülich GmbH, Helmholtz Institute Erlangen-Nuremberg, Immerwahrstr. 2, 91058 Erlangen* *[2]Friedrich-Alexander-University Erlangen-Nuremberg, Institute Materials for Electronics and Energy Technology, Martensstr. 7, 91058 Erlangen*			**09:00-09:30** **INVITED**	**2D electronics and sensors, towards smart electronic circuits** **G. Deligeorgis[1,2]**, F. Iacovella[1], D.M. Kosmidis[1], A. Provias[1,2], N. Armaou[1,2], A. Papadopoulou[1] *[1]. Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology – Hellas (FORTH), Greece* *[2]. Department of Physics, University of Crete, Greece*
09:30-10:00 **KEYNOTE**	**Upscaling OPV into production tech What are the obstacles to reach a competitive OPV industry in Europe?** **T. Kolbusch[1]**, H. Rooms[2], K. Stephan[3], … *Coatema Coating Machinery GmbH, Germany*	**10:00-11:00** Timber Hall1	**Workshop on OLEDs, OTFTs and Wearables 2** **Chair: E. Lidorikis, Univ. of Ioannina, Greece**	**09:30-10:00** **INVITED**	**Graphene Oxide: Progress and Surprises** **W.K. Maser[1]**, A.M. Benito[2] *Instituto de Carboquímica (ICB-CSIC), E-50018 Zaragoza, Spain*
10:00-10:30 **INVITED**	**Role of interlayers in fully solution-processed organic electronics** B. Orwat[1], K. Jankowska[2,3], A. Luczak[1], J. Nawrocik[2,3], R. Udovydska [1], J. Jung [1], A. Singh[1], **B. Luszczynska[1]** *[1]Lodz University of Technology, Department of Molecular Physic, Poland* *[2]Faculty of Chemistry, Adam Mickiewicz University, Poland;* *[3]Center for Advanced Technology, Adam Mickiewicz University, Poznan, Poland;*	**10:00-10:15**	**Fully edible transistor: a building block for edible electronics** **E. Feltri[1,2]**, P. Mondelli[1], F. Ferrarese[1,2], A. Luzio[1], M. Caironi[1] *[1]Center for Nano Science and Technology, IIT, Italy* *[2]Physics Department, Politecnico di Milano, Milan, Italy*	**10:00-10:15**	**Laser-assisted high-quality graphene-like structures for energy storage applications** **M. Athanasiou[1]**, N. Samartzis[1,2], K. Bhorkar[1], V. Dracopoulos[1], T. Ioannides[1], S. N. Yannopoulos[1] *[1] FORTH/ICE-HT, Rio-Patras, Greece* *2 Department of Chemistry, University of Patras, Greece*
		10:15-10:30	**Flexible PLEDs based on green color emitting polymers for biosensing applications** **K. Papadopoulos[1]**, D. Tselekidou[1], A. Zachariadis[1], V. Kyriazopoulos[2], S. Kassavetis[1], A. Laskarakis[1], S. Logothetidis[1,2], M. Gioti[1] *[1]Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece* *[2]Organic Electronic Technologies (OET), Greece*	**10:15-10:30**	**Effects of ambient humidity on composite graphene-thymine and graphene-lipid thin films as a platform for molecular sensing** **R. Panajotović[1]**, J. Vujin[1], M. Vorokhta[2], I. Khalakhan[2], I. Milošević[1], W. Huang[3], and S. Ptasinska[4] *[1] Laboratory for 2D materials, Institute of physics, Belgrade, Serbia; [2] Department of Surface and Plasma Science, Charles University, Czech Republic; [3] Department of Chemistry and Biochemistry, University of Notre Dame, USA; [4] Department of Physics and Astronomy, University of Notre Dame, USA*
10:30-11:00 **INVITED**	**Novel Concepts for Perovskite Solar Cells** **U. Menda[1]**, A. Akalin[1,2], T. Mateus[1], A. Vicente[1], E. Coimbra[1], D. Camilo[1], Hugo Aguas[1], R. Martins[1], M. Mendes[1] *[1]i3N/CENIMAT, Department of Materials Science, Faculty of Science and Technology, Universidade NOVA de Lisboa Caparica Campus, Caparica, Portugal* *[2] Dokuz Eylul University, Center for Fabrication & Application of Electronic Materials, Turkey*	**10:30-10:45**	**Middle-sized ZnS-rich ZnCdSeS Quantum Dots for Transparent Electroluminescent Films** **H. S. Chen**, C. W. Yeh, S. Yang *Department of Materials Science & Engineering, National Tsing Hua University, Hsinchu, Taiwan*	**10:30-10:45**	
		10:45-11:00	**Study of novel conjugated polymers: from emissive thin films to fabricated printed flexible OLEDs** **D. Tselekidou[1]**, K. Papadopoulos[1], A. Zachariadis[1], V. Kyriazopoulos[2], K. C. Andrikopoulos[3], A.K. Andreopoulou[3], J.K. Kallitsis[3], S. Kassavetis[1], A. Laskarakis[1], S. Logothetidis[1,2], M. Gioti[1] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), Greece*	**10:45-11:00**	

[3] *Department of Chemistry, University of Patras, Greece*

11:00-11:30	**Coffee Break** **ISFOE23 Posters- Exhibition - Networking**

11:30-13:30 Timber Hall 1	**Workshop on OLEDs, OTFTs and Wearables 3** **Chair: M. Gioti, LTFN, AUTh, Greece**	**11:30-13:30** Crystal Hall	**Workshop on OLAE Materials 5** **Chair: B. Luszczynska, Lodz University of Technology, Poland**
11:30-12:00 **INVITED**	**A new stretchable Li-ion microbattery design for wearable applications** **T. Djenizian** *Department of Flexible Electronics, School of Mines Saint-Etienne, Gardanne, France*	**11:30-12:00** **INVITED**	**Sustainable Light Management via Photon Energy Up-Conversion in Organic Semiconductors** **P. E. Keivanidis** *Device Technology and Chemical Physics Lab, Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, 45 Kitiou Kyprianou str., Limassol 3041, Cyprus*
12:00-12:15	**Smart Textiles for personal cooling: a PCM cooling vest model** **K.M.B. Jansen** *Faculty of Industrial Design Engineering, Delft University of Technology, The Netherlands*	**12:00-12:30** **INVITED**	**Simple routes for engineering performance improvements in perovskite photovoltaics** **M. A. McLachlan** *Department of Materials, Imperial College London* *Molecular Sciences Research Hub, Wood Lane, London, W12 0BBZ, UK*
12:15-12:30	**Insights into the complex crystalline structure of PVDF-based co- and ter-polymers: impact of the processing and post-treatments on the electroactive properties** **J. Housseini**, G. Fleury, G. Hadziioannou *Laboratoire de Chimie des Polymères Organiques (LCPO), Univ. Bordeaux, CNRS, France*		
12:30-12:45	**Human-integrated biocompatible devices for stress and strain monitoring** V. Vit, M. Bettelli, V. Sinisi, M. Villani, **N. Coppedè** *Institute of Materials for Electronics and Magnetism, (IMEM), Italian National Council (CNR), Italy*	**12:30-13:00** **INVITED**	**Factors Governing Charge Transfer in Doped Organic Semiconductors: Role of Structure, Dopant Strength, and Steric Hindrance** **I. Salzmann** *Department of Physics, Department of Chemistry and Biochemistry,* *Concordia University, Montreal, Quebec H4B 1R6, Canada*
12:45-13:00	**Biocompatible and biodegradable integrated soft pressure sensor based on functionalized cellulose nanocomposites** **V. Vit**[1], V. Sinisi[1], L. Riva[2,3], A. Fiorati[2,3], C. Punta[2,3], N. Coppedè[1] [1] *Institute of Materials for Electronics and Magnetism, (IMEM), Italian National Council (CNR), Italy* [2] *Dept Chemistry, Materials, and Chemical Engineering "G. Natta", Politecnico di Milano, Italy* [3] *INSTM Local Unit, Politecnico di Milano, Italy*		
13:00-13:15	**Real Time controlling of In-Organic material deposition by Digital SE tool for Organic Light Emitting Diodes fabricated on Cluster OVPD PPL** M. Chatzidis[1], A. Zachariadis[1], P.K. Baumann[2], A. Laskarakis[1], M. Gioti[1], S. Logothetidis[1] [1] *Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Thessaloniki, Greece* [2] *AIXTRON SE (Dornkaulstr. 2, 52134 Herzogenrath, Germany*	**13:00-13:15**	**Molecular Doping for Enhancement of the Performance of Fully Printed Flexible Organic Solar Cells** **A. Paliagkas**[1], C. Stavraki[1], C. Kapnopoulos[1], A. Zachariadis[1], V. Heben[1], E. Rabota[1], S. Logothetidis[1,2], A. Laskarakis[1] [1] *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* [2] *Organic Electronic Technologies (OET), Greece*

13:15-15:00	**Lunch Break** **ISFOE23 Posters- Exhibition - Networking**

15:00-17:30 Crystal Hall	**Workshop on OLAE 6** **Chair: A. Laskarakis, LTFN, AUTh, Greece**
15:00-15:30 **KEYNOTE**	**Stars in your eyes - monodisperse macromolecules for photonic and optoelectronic applications** **P.J. Skabara** *School of Chemistry, University of Glasgow, Glasgow, United Kingdom*
15:30-16:00 **INVITED**	**Recent advancements in materials for scalable organic Photovoltaics** **JR. Pouliot**, P. Berrouard, A. Hensbee

	[1]*Brilliant Matters Inc.237 Rue de Liverpool, Saint-Augustin-de-Desmaures, QC G3A2C8 Canada*
16:00-16:15	**Membrane-based mechanical characterization of screenprinted ink films** **E. Masarweh**[1], M. Arseenko[2], P. Guaino[2], D. Flandre[1] *[1] ICTEAM Institute, UCLouvain, Louvain-la-Neuve; [2] Advanced & Smart Surface Solutions, CRM Group, Liège, Belgium*
16:15-16:30	**Towards Edible Gas Sensors to Reduce Food Waste** **P. Mondelli**, E. Feltri, A. Luzio, M. Caironi *Printed and Molecular Electronics, Italian Institute of Technology, Italy*
16:30-16:45	**Electrospray of PEDOT:PSS: Enhancing the Performance of Solid-State Fiber-Shaped Supercapacitors** **M.P. Moniz**[1], A. Rafique[1], J. Carmo[1], A. C. Marques[1,2], I. Ferreira[1], A. C. Baptista[1] *[1] CENIMAT|I3N, Department of Materials Science, School of Science and Technology, NOVA University of Lisbon, Portugal* *[2]Physics Department, University of Lisbon, Lisbon, Portugal*
16:45-17:00	**Development of wearable thermoelectric generator for human body energy harvesting. From modelling to the device** **J. F. S. Claumarchirant**, E. Suena-Galindez, O. Fenwick *School of Engineering & Materials Science. Queen Mary University of London, UK*
17:00-18:00	**Closing Remarks and Discussion** **End of ISFOE23**

	Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs **Monday 3 July to Thursday 6 July: Poster Display & Presentations** **Monday 3 July (18:30-20:30): Poster Presentation**
P1-1 **YRA Candidate**	**Zigzag-shaped organic semiconductors conducting mixed-orbital charge transport controlled by heavy chalcogen atoms** **D. Yamanaka[1]**, Y. Koyama[1], M. Mitani[1], C. P. Yu[1], H. Ishii[2], A. Yamamoto[1], S. Kumagai[1], J. Takeya[1], T. Okamoto[1] *[1]Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo, Kashiwa, Chiba, Japan* *[2]Department of Applied physics, Faculty of Pure and Applied Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan*
P1-2	**Fermi-Level Pinning in Organic Thin-Film Transistors** **T. Wollandt**, K. Küster, S. Steffens, H. Klauk Max Planck Institute for Solid State Research, Stuttgart, Germany
P1-3	**An amphiphilic glycolated poly(3,4-ethylenedioxythiophene) for applications in microelectrodes and electrochemical transistors** **R. Rybakiewicz-Sekita,[1,2]** M. Gryszel,[1,3] G. Pathak,[3] R. Gańczarczyk,[1] M. Donahue,[3] E. D. Głowacki[1,4] *[1]Warsaw University of Technology, Faculty of Chemistry, Warsaw, Poland* *[2]Cardinal Stefan Wyszynski University, Faculty of Mathematics and Natural Sciences, School of Exact Sciences, Warsaw, Poland* *[3]Linköping University, Laboratory of Organic Electronics, ITN, Norrköping, Sweden* *[4]Central European Institute of Technology, Brno University of Technology, Bioelectronics Materials and Devices Lab, Brno, Czech Republic*
P1-4	**Synthesis and investigation of new semiconducting oligoaniline based polymers** **N. A. Durgaryan** *Department of Organic Chemistry, Yerevan State University, , Armenia*
P1-5	**Photoluminescent properties of carborane-substituted polycyclic aromatic hydrocarbons** **A. V. Marsh[1]**, N. J. Cheetham[2], M. Little[2], M. Dyson[2], A. J. P. White[2], P. N. Stavrinou[3], M. Heeney[1*] *[1]King Abdullah University of Science & Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia* *[2]Imperial College London, Exhibition Road, London SW7 2AZ, United Kingdom* *[3]University of Oxford, Oxford, OX1 3PJ, United Kingdom*
P1-6	**Optical Characterization of Crystalline Phases of NDI-T2 based Oligomers** **A. Ehm[1]**, E. Bortchagovski[1], R. Matsidik[2], M. Sommer[2], D. R. T. Zahn[1] *[1]Institute of Physics, Semiconductor Physics, Chemnitz University of Technology* *[2]Institute of Chemistry, Polymer Chemistry, Chemnitz University of Technology, Germany*
P1-7	**Temperature-dependent morphological changes of P3HT thin films via real-time Spectroscopic Ellipsometry** **S. Bovasianos**, A. Zachariadis, S. Logothetidis, A. Laskarakis *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*
P1-8	**Utilizing F4-TCNQ Additive for Molecular Doping in Fully Printed Flexible Organic Solar Cells** **A. Paliagkas[1]**, C. Stavraki[1], C. Kapnopoulos[1], A. Zachariadis[1], V. Heben[1], E. Rabota[1], S. Logothetidis[1,2], A. Laskarakis[1] *[1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), Greece*
P1-9	**Investigating the Effects of Chlorine Addition on the Structure and Stability of Printed Perovskite Solar Cells** **C. Stavraki[1]**, C. Kapnopoulos[2], A. Zachariadis[1], S. Kassavetis[1], A. Paliagkas[1], V. Heben[1], C. Gravalidis[1], E. Mekeridis[2], S. Logothetidis[1,2], A. Laskarakis[1] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2]Organic Electronic Technologies (OET), Greece*
P1-10	**Star-Shaped Hole Transporting Materials with A Dibenzothiophene Units For Efficient Perovskite Solar Cells** **R. Durgaryan[1,2]**, J. Simokaitiene[2], D. Volyniuk[2], J. V. Gražulevičius[2], N. Durgaryan[1] *[1]Department of Organic Chemistry, Yerevan State University, Yerevan, Armenia* *[2]Department of Polymer Chemistry and Technology, Kaunas University of Technology, Lithuania*
P1-11	**Fabrication and investigation of ternary-based organic photovoltaic devices based on the PBDB-T:BTP-12:PC60BM system** **E. Andrioti**, G. Atsas, O.Heben, C. Kapnopoulos, E. Rabota, A. Zachariadis, S. Logothetidis, A. Laskarakis *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*

P1-12	**Novel crosslincable acceptors for solar cells** **E. Kamarauskas**[1], L. M. Svirskaitė[2], T. Malinauskas[2], K. Genevičius[1], V. Getautis[2], V. Jankauskas[1], R. J. Čepas[1] *[1]Institute of Chemical Physics, Vilnius University, Lithuania* *[2]Department of Organic Chemistry, Kaunas University of Technology, Lithuania*
P1-13 **YRA Candidate**	**Nanomechanical properties of hole transport layer doped with silver nanoparticles for flexible organic photovoltaics** **A. Kostopoulou**, S. Kassavetis, C. Kapnopoulos, S. Logothetidis, A. Laskarakis *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*
P1-14 **YRA Candidate**	**The Impact of Light-Induced Annealing on Absorber Layer Crystallization in Organic Solar Cells** **S. B. Turgut**, D. A. Kara, B. Gultekin, *Solar Enery Institute Ege University, Izmir,Turkey*
P1-15	**Systematic study of fully printed ternary photovoltaic configurations based on PPDT2FBT:PC70BM:BTP-12** **G. Atsas**, E. Andrioti, O. Heben, C. Kapnopoulos, E. Rabota, A. Zachariadis, S. Logothetidis, A. Laskarakis *Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece*
P1-16	**Progress in inline photoluminescence testing of Organic PV structures** **T. Brigancz**[1], Zs. Sánta[1], Z. Kiss[1] and F. Korsós[1], A. Zachariadis[2], C. Kapnopoulos[2], V. Kyriazopoulos[3], E. Mekeridis[3], A. Laskarakis[2], S. Logothetidis[2, 3] *[1]Semilab Co. Ltd.,4/A. Prielle K. str., Budapest, Hungary* *[2] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[3]Organic Electronic Technologies (OET), Greece*
P1-17	**Understanding contact resistance in nanoscale organic thin-film transistors** **K. Cordero-Solano**, U. Zschieschang, B. Fenk, T. Reindl, T.Wollandt, J.Weis, H. Klauk *Max Planck Institute for Solid State Research, Stuttgart, Germany*
P1-18	**Controlling the emission zone in light-emitting electrochemical cells** **Z. Xiaoying**, J. Ràfols-Ribé, C. Larsen, L. Edman *Department of Physics, Umeå University, Sweden*
P1-19	**A Printed Optical Flow Sensor, Utilizing Thermochromic Ink** D. Barmpakos[1], A. Apostolakis[1], A. Pilatis[1, 2], D.-N. Pagonis[2], **G.Kaltsas**[1] *[1]microSENSES Laboratory, Department of Electrical and Electronics Engineering, University of West Attica, Athens, Greece* *[2]Department of Naval Architecture, University of West Attica, Athens, Greece*
P1-20	**Magnesium Boride/Graphene as Potential Electrode Material in Supercapacitors** **H. A. Kahyaoglu**, S.S. Gultekin, B. Gultekin *Solar Energy Institute, Ege University, İzmir, Turkey*
P1-21	**Optical temperature sensing utilizing thermochromic inks – A fully printed approach** A. Pilatis[1,2], F. Skendaj[1], M. Mesiri[1], G. De la Cruz[1], D. Barmpakos[1], A. Apostolakis[1], D. Pagonis[1,2], **G. Kaltsas**[1] *[1]microSENSES Laboratory, Department of Electrical and Electronics Engineering, University of West Attica, Athens, Greece* *[2]Department of Naval Architecture, University of West Attica, Athens, Greece*
P1-22	**Battery prototype with a cell based on alloys/*carbon* nanostructures systems** **W. Ciesielski**, D. Kulawik, S. Żarska *Jan Dlugosz University in Czestochowa, 13/15 Armii Krajowej Ave., 42-200 Czestochowa, Poland*
P1-23 **YRA Candidate**	**Superficial approach to enhance the properties of commercially available Ag-conductive fabric by Electroless-Deposition-Method for different wearable sensor applications** **H. Zafar**[1], R. Memon[2], G. Stojanović[1] *[1] Department of Power Electronics and Telecommunication, University of Novi Sad, Trg Dositeja Obradovića 3, Novi Sad, Serbia* *[2] Sabancı University, Istanbul, Turkey*
P1-24 **YRA Candidate**	**A Novel Textile Wearable OECT-Integrated Smart Bandaid for Real-Time Uric Acid Monitoring in Wound Exudate** **Arcangeli D.**[1], Gualandi I.[1], Mariani F.[1], Tessarolo M.[2], Ceccardi F.[1], Decataldo F.[2], Melandri F.[3], Tonelli D.[1], Fraboni B.[2], Scavetta E.[1] *[1]Department of Industrial Chemistry "Toso Montanari", University of Bologna, Bologna, Italy* *[2]Department of Physics and Astronomy "Augusto Righi", University of Bologna, Bologna, Italy* *[3]Plastod S.p.A., Calderara di Reno, Bologna, Italy*

P1-25	**Polymeric Ferroelectrets for Ultrasensitive Sensing and Nanoenergy Harvesting** **H. V. Seggern**[1], S. Zhukov[1], O. B. Dali[2], M. Kupnik[2] [1]*Materials and Earth Sciences, Tech. Univ. Darmstadt, Germany* [2]*Measurement and Sensor Technology Group, Tech. Univ. Darmstadt, Germany*
P1-26	**All-Fibre Photovoltaic Storage Devices for E-Textiles** **M.P. Moniz**, J. Carmo, I. Sequeira, A. Rafique, I. Ferreira and A.C. Baptista *CENIMAT|I3N, Department of Materials Science, School of Science and Technology, NOVA University of Lisbon, Portugal*
P1-27 **YRA Candidate**	**In-Mold OPV**: Improved organic photovoltaic modules properties under injection molding **P. Pinyol-Castillo**[1], A. López-Porta[2], N. Lozano[2] I. Burgués-Ceballos[1], L. Lopez-Mir[1] [1] *EURECAT, Centre Tecnològic de Catalunya, Functional Printing and Embedded Devices Unit, Parc Científic TecnoCampus, Av. Ernest Lluch 36, 08302 Mataró, Spain* ***[2] EURECAT, Centre Tecnològic de Catalunya, Polymeric and Composites Processes Unit, Parc Tecnològic del Vallès, Spain***

	Biosensors & Bioelectronics (Common POSTER Session in ISFOE23 & NN23) **Tuesday 4 to Thursday 6 July: Poster Display & Presentations** **Thursday 6 July (17:00-20:00): Poster Presentation**
P4-1	**Bottom-Up and "Top-Down" Approaches for the Fabrication of Nanostructured Surfaces with Sensing Applications** **A. Colniță** [1], D. Marconi[1], I. Brezeștean [1], N.E. Dina[1], A. Calborean[1], L. Barbu-Tudoran [1,2], I. Turcu [1] [1]*Molecular and Biomolecular Physics Department, National Institute for Research and Development of Isotopic and Molecular Technologies, Romania* [2]*Electron Microscopy Centre, Faculty of Biology and Geology, Babes-Bolyai University, Romania*
P4-2	**Serotonin detection in artificial plasma based on modified graphene-aniline electrochemical sensors** **S.-M. Iordache**[1], A. M. I. Trefilov[2,3], A.- M. Iordache[1], A. V. Filip[3], I. C. Vasiliu[1], M. Elisa[1], I. Chilibon[1], S. Caramizoiu[4], C. E. A. Grigorescu[1] [1]*Optospintronics Department, National Institute of Research and Development for Optoelectronics—INOE 2000, Romania;* [2]*3Nano-SAE Research Center, Faculty of Physics, University of Bucharest, Romania* [3]*National Institute for Laser, Plasma and Radiation Physics, Romania;* [4]*National Institute for Research and Development in Microtechnologies, ROMANIA*
P4-3	**Spectro-electrochemical properties of a new non-enzymatic modified working electrode used for histamine assessment in the diagnosis of food poisoning** **S.-M. Iordache**[1], A.-M. Iordache[1], A. Zubarev[2], M. Cuzminschi[3], R.-E. Bohiltea[4], C. Giuglea[4], S. Caramizoiu[5], I. C.Vasiliu[1], M.Elisa[1], I. Chilibon[1], C.E.A. Grigorescu[1] [1]*Optospintronics Department, National Institute of Research and Development for Optoelectronics—INOE 2000, Romania;* [2]*National Institute for Laser, Plasma and Radiation Physics, Romania;* [3]*Horia Hulubei National Institute for R&D in Physics and Nuclear Engineering, ROMANIA* [4]*University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania;* [5]*National Institute for Research and Development in Microtechnologies, ROMANIA;*
P4-4	**Complex colorimetric and thermochromic sensor array for the evaluation of urea in artificial saliva** **A.M. Iordache**[1], S.-M. Iordache[1], T. Soare[2], C. Rizea[3], A. Mazlum[3], I. C. Vasiliu[1], M. Elisa[1], I. Chilibon[1], C.E.A. Grigorescu[1] [1]*Optospintronics Department, National Institute for Research and Development for Optoelectronics—INOE 2000, Romania;* [2]*Department of Pathology, Faculty of Veterinary Medicine, University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania* [3]*Roxy Veterinary S.R.L, Romania*
P4-5	**Label- free electrochemical DNA biosensor to mercury ions detection** **A. Szymczyk** [1], M. Olszewski [2], R. Ziółkowski [1], E. Malinowska [1,3] [1]*Chair of Medical Biotechnology, Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland* [2]*Chair of Drug and Cosmetics Biotechnology, Faculty of Chemistry, Warsaw University of Technology, Warsaw, Poland* [3]*Centre for Advanced Materials and Technologies CEZAMAT, Warsaw University of Technology, Warsaw, Poland*
P4-6	**Printed oxygen indicator for smart food packaging** **V. Dobiáš**[1], D. Filipi[2], M. Veselá[3], M. Veselý[4] [1,2,4]*Institute of Physical and Applied Chemistry, Faculty of Chemistry, Brno University of Technology, Czech Republic* [3]*Institute of Food Science and Biotechnology, Faculty of Chemistry, Brno University of Technology, , Czech Republic*

P4-7	**3D silver metallized nanotrenches and heterostructured ZnO@Ag hybrid substrates used as a highly sensitive and flexible SERS detection platform** **I. A. Brezeștean**[1], D. Marconi [1], M. Suciu [1,2], N. E. Dina [1], I. Turcu [1], A. Colniță [1] *[1]Department of Molecular and Biomolecular Physics, National Institute for Research and Development of Isotopic and Molecular Technologies, Romania* *[2]Electron Microscopy Centre, Faculty of Biology and Geology, Babes-Bolyai University, Romania*
P4-8	**Nanotechnology to monitor the SERS response of Cojocna salt lake waters from Transylvania** **C. Molnár [1, 3]**, T. D. Drigla [2], S. Cîntă Pînzaru [2, 3] *[1] National Institute for Research and Development of Isotopic and Molecular Technologies, Cluj-Napoca, Romania* *[2]Institute for Research, Development and Innovation in Applied Natural Sciences, Babes-Bolyai University, , Cluj-Napoca, Romania* *[3] Biomolecular Physics Department, Babeş–Bolyai University, Cluj Napoca, Romania*
P4-9	**Surface-enhanced Raman scattering (SERS) for bioanalysis and diagnosis** **N.E. Dina**[1], A. Colniță[1], D. Marconi[1], I.A. Brezeștean[1], A.M.R. Gherman[1] *[1]Department of Molecular and Biomolecular Physics, National Institute for Research and Development of Isotopic and Molecular Technologies, Romania*
P4-10	**Development of sodium-ion pouch type batteries based on biochar anode materials** D. Batsouli[1], D. Hoxha[1], D. Vlachos[1], A. Vavouliotis[1], D. Katsoulotou[2,3], J. Papavasiliou[2,3], T. Ioannides[2], **G. Avgouropoulos[3]** *[1]Adamant Composites Ltd., Patras, Greece; [2] Foundation for Research and Technology Hellas – Institute of Chemical Engineering Sciences (FORTH/ICE-HT)Patras, Greece* *[3]Department of Materials Science, University of Patras, Patras, Greece*
P4-11	**Bio-functionalized Memristive Nanowires for Ultrasensitive and Specific Electrochemical Bio-sensing and Cancer Early-Detection.** **I. Tzouvadaki**[1], S. Carrara[2] *[1]Centre for Microsystems Technology, Ghent University – IMEC, Ghent, Belgium, [2]Bio/CMOS Interfaces (BCI) Laboratory, EPFL, Lausanne, Switzerland*
P4-12	**Bio-functionalization of flexible printed electrochemical biosensors to detect D-Glucose** **A. Batsi**[1], P. Stavropoulos[1], I. E. Chatziioannou[1], K. Tsimenidis[2], A. Orfanos[2], V. Karagkiozaki[2],S. Logothetidis[1,2], A. Laskarakis[1] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] BL Nanobiomed P.C., 20th Km Thessaloniki – Tagarades Road, Thessaloniki, Greece*
P4-13	**Biocompatibility Experiments of Albumin & Fibrinogen on Conductive Metal Nitride Nanocomposites** **T. Odutola**[1], N. Pliatsikas[1], S. Panos[1], I. Fekas[1], S. Kassavetis[1], M. Gioti[1], P. Patsalas[1]. [1]Physics Department, Aristotle University of Thessaloniki - Thessaloniki (Greece)
P4-14	**Wearable textile organic electrochemical transistor for sweat monitoring** **E. Dembech**[1], P. D'Angelo[1], G. Tarabella[1], V. Sinisi[1], S.L. Marasso[1,2], V. Vit[1], M. Bettelli[1], A. A. Babatunde[1,3], N. Coppedè[1] [1] Institute of Materials for Electronics and Magnetism, (IMEM), Italian National Council (CNR), Parco Area delle Scienze 37/A, Italy [2] χlab-Materials and Microsystems Laboratory, Department of Applied Science and Technology, Politecnico di Torino-Via Lungo Piazza d'Armi 6, 10034 Chivasso, Turin, Italy [3] Department of Physics University of Illorin, Kwara State, Nigeria
P4-15	**Electrodeposition of Gold nanoparticles on flexible substrate for electrochemical bio-sensing applications** **P. Stavropoulos**[1], A. Batsi[1], K. Tsimenidis[2], A. Orfanos[2], S. Panos[1], P. Rampota[1], V. Karagkiozaki[2], S. Logothetidis[1,2], A. Laskarakis[1] *[1] Nanotechnology Lab LTFN, Physics Department, Aristotle University of Thessaloniki, Greece* *[2] BL Nanobiomed P.C., 20th Km Thessaloniki – Tagarades Road, Thessaloniki, Greece*

	Graphene and Related Materials (Common with NN23 WS5) **Tuesday 4 to Thursday 6 July: Poster Display & Presentations** **Thursday 6 July (17:00-20:00): Poster Presentation**
P5-1	**Raman microscopy and spectroscopy studies of nano carbonic material growth by PECVD method** **C. Pachiu**, O. Simionescu, B. Adiaconita, A. Avram, O. Buiu, R. Marinescu, R. Popa, L.Dinu *National Institute for Research and Development in Microtechnologies (IMT-Bucharest), Romania*
P5-2	**In-situ microwave-hydrothermal synthesis of TiO_2-rGO composite structures** **C. Bandas**[1], C. Lazau[1], M. Nicolaescu[1,2], C. Orha[1], A. Pop[2], S. Caprarescu[3] *[1]National Institute for Research and Development in Electrochemistry and Condensed Matter Timisoara, Romania* *[2]Department of Applied Chemistry and Engineering of Inorganic Compounds and Environment, University "Politehnica" of Timisoara, Romania* *[3]Department of Inorganic Chemistry, Physical Chemistry and Electrochemistry, Faculty of Chemical Engineering and Biotechnologies, University "Politehnica" of Bucharest, Bucharest, Romania*

P5-3	**Magnesium Boride/Graphene as Potential Electrode Material in Supercapacitors** **H. A. Kahyaoglu**[1], S.S. Gultekin[1], B. Gultekin[1] *Solar Energy Institute, Ege University, İzmir, Turkey*
P5-4	**Recycled industrial graphite wastes for the sustainable synthesis of high added value nanomaterials** M. Subrati[1], E. Galata[1], I. Toliou[1], K.M. Lyra[1], G. Petrou[2], P. Magkaniaris[2], G. Romanos[1], Z. Sideratou[1], **F.K. Katsaros**[1] [1]*Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Aghia Parasevi Attikis,, Greece* [2] *CARBONTEC E.E., Athens, Greece*
P5-5	**GO-biochar hybrids as anode materials for sodium ion batteries** C. Rista[1], J. Papavasiliou[1,2], **S. Tombros**, G. Avgouropoulos[1], V. Georgakilas[1] [1] *Department of Materials Science, University of Patras, GR-26504, Rio-Patras, Greece* [2] *Foundation for Research and Technology Hellas – Institute of Chemical Engineering Sciences (FORTH/ICE-HT), Patras, Greece*
P5-6	**2D-Material Based Plasmonic Devices for Infrared Spectroscopy of Biological Samples** **Y.W. Kang**[1,3], P. Gardner[2, 3], T. Echtermeyer[1, 3, 4] [1]*Department of Electrical & Electronic Engineering, The University of Manchester, United Kingdom* [2]*Department of Chemical Engineering, The University of Manchester, United Kingdom* [3]*Photon Science Institute, University of Manchester, United Kingdom* [4]*National Graphene Institute, University of Manchester, United Kingdom*