















Monday 5 July 2021

10:30-11:00 UTC/GMT+3	Welcome and Opening Remarks S. Logothetidis, ISFOE21 Chairman
11:30-13:00	Workshop on OLAE Materials 1 (V: ISFOE1, L: CRYSTAL) Chair: A. Laskarakis, LTFN, Aristotle University of Thessaloniki, Greece Supported by:    
11:00-11:30 KEYNOTE	Solid-state electrocaloric cooling, from materials to devices Georges Hadziioannou <i>Chemistry Professor at University of Bordeaux International member of the US NAE, Laboratoire de Chimie des Polymers Organiques (LCPO) UMR CNRS 5629 Bordeaux France</i>
11:30-12:00 INVITED	Lessons learnt with donor:acceptor photovoltaic blends: Can they be applied to doped polymer systems? N. Stingelin <i>School of Materials Science and Engineering, Georgia Tech, U.S.A</i>
12:00-12:30 INVITED	Conjugated Polymers containing Heavy Main Group Elements M. Heeney <i>Dept. Chemistry, Imperial College London, South Kensington, U.K.</i>
12:30-12:45	Functional Miktoarm Block Copolymers: Combining Redox-active Polymers and Self-assembly L. Stein, C. Malacrida, K. Dirnberger, S. Ludwigs <i>University of Stuttgart, Germany</i>
12:45-13:00	Modification of nanoparticles' shell as a way to enhance electrical properties of iron oxide/polythiophene based hybrid material R. Wirecka ^{1,2} , M. M. Marzec ² , M. Marciszko-Wiąckowska ² , M. Lis ² , M. Gajewska ² , E. Trynkiewicz ² , D. Lachowicz ² , A. Beranskik ^{1,2} ¹ AGH University of Science & Technology, Faculty of Physics & Applied Computer Science, Cracow, Poland, ² AGH University of Science and Technology, Academic Centre for Materials & Nanotechnology, Cracow, Poland





13:00-14:00	Lunch Break	Exhibition-Networking	Poster Display & Presentations: Nanomaterials	Poster Display: Graphene and Related Materials, Biosensors & Bioelectronics, I3D
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14:00-16:00	Workshop on OLAE Materials 2 (V: ISFOE1, L: CRYSTAL) Chair: M. Gioti, LTFN, AUTH, Greece    			
14:00-14:30 KEYNOTE	Device Synthesis – and engineering approach to material driven field N. Tessler, H. Shekhar, G. Sheleg, D. Liraz, S. Bitton <i>Microelectronic & Nanoelectronic Centers, Electrical and Computer Engineering, Technion Israel Institute of Technology, Haifa 32000, Israel</i>	14:30-16:00	Workshop on Computational Modelling of Materials, Devices & Processes 1 (V: MODEL-Session) Chair: E. Lidorikis, University of Ioannina, Greece  	
14:30-15:00 INVITED	Inorganics Substrates For Flexible Electronics M.Prassas ¹ , CG. Zhuang ² ¹ Corning European Technology Center, Avon, France ² Corning Inc., Corning, NY, USA	14:30-15:00 INVITED	Predictive Modelling of Structure Formation in Semiconductor Films Produced by Meniscus-guided Coating J. J. Michels ¹ , K. Zhang ¹ , P. Wucher ² , P. M. Beaujuge ² , W. Pisula ^{1,3} , T. Marszalek ^{1,3} ¹ Molecular Electronics Division, Max Planck Institute for Polymer Research, Mainz, Germany ² Physical Sciences and Engineering Division, KAUST Solar Center (KSC), Saudi Arabia ³ Department of Molecular Physics, Faculty of Chemistry, Lodz University of Technology, Lodz, Poland	
15:00-15:30 INVITED	Controlled Crystallization & Electrochemical Doping Strategies of Films based on the two Work-Horses P3HT & P(NDI2OD-T2) S. Ludwigs <i>IPOC – Functional Polymers, University of Stuttgart, Germany</i>	15:00-15:30 INVITED	Material parameter extraction by traditional and machine learning based fitting approaches for the optimization of organic semiconductor devices S. Jenatsch ¹ , E. Knapp ² , E. Comi ² , M. Battaglia ² , S. Züfle ^{1,2} , B. Ruhstaller ^{1,2} ¹ Fluxim AG, Winterthur, Switzerland, ² Inst. of Computational Physics, Zurich Univ. of Applied Sciences, Switzerland	
15:30-15:45	Quantitative Comparison Between the Different Methods to Determine the Amplified Spontaneous Emission Threshold in Active Waveguides S. Milanese, M.L. De Giorgi, M. Anni <i>Dipartimento di Matematica e Fisica “Ennio De Giorgi”, Università del Salento, Italy</i>	15:30-16:00 INVITED	Accurate prediction of thermodynamic properties of materials from machine-learned force fields: thermal transport and phase transitions C. Verdi ¹ , F. Karsai ² , P. Liu ² , R. Jinnouchi ³ , and G. Kresse ^{1,2} ¹ Faculty of Physics, University of Vienna, Austria, ² VASP Software GmbH, Vienna, Austria, ³ Toyota Central Research and Development Laboratories, Japan	
15:45-16:00	Implementing inkjet-printed and low temperature plasma-sintered Ag electrodes in ITO-free OLEDs M. Hengge ¹ , K. Livanov ² , N. Zamoschik ² , F. Hermerschmidt ³ , E. J. W. List-Kratochvil ^{1,3} ¹ Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany, ² OreTech GmbH, Berlin, Germany, ³ Institut für Physik, Institut für Chemie & IRIS Adlershof, Humboldt-Universität zu Berlin, Germany			

16:00-16:30	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Nanomaterials	Poster Display: Graphene and Related Materials, Biosensors & Bioelectronics, I3D
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16:30-20:00	Workshop on OPVs & Perovskite PVs 1 (V: ISFOE2, L: TIMBER 2) Chair: S. Kassavetis, LTFN, AUTH, Greece	   	
16:30-17:00 KEYNOTE	Minimizing voltage losses in organic solar cells with a low energy offset F. Gao <i>Linköping University, Linköping, Sweden</i>		
17:00-17:30 KEYNOTE	LBIC: possibly the most powerful imaging tool for solar cells F. C. Krebs, M. Jørgensen <i>infinityPV ApS, Møllehaven 12A, DK-4040 Jyllinge, Denmark</i>		17:00-20:00
17:30-18:00 KEYNOTE	Performance limiting factors in organic solar cells and photodetectors K. Vandewal <i>Institute for Materials Research (IMO-IMOMEC), Hasselt University, Belgium</i>		Workshop on OLAE Materials 3 (V: ISFOE1, L: CRYSTAL) Chair: A. Laskarakis, LTFN, Aristotle University of Thessaloniki, Greece
18:00-18:30 INVITED	Organic dyes for semi-transparent and photochromic solar cells J. Liotier ¹ , V.M. Mwalukuku ¹ , S. Fauvel ¹ , P. Maldivi ¹ , A. J. Riquelme ² , J. A. Anta ² , R. Demadrille ¹ ¹ Univ. Grenoble Alpes, CEA, CNRS, IRIG, SyMMES, F-38000 Grenoble ² University Pablo de Olavide, 41013 Sevilla, Spain		17:30-18:00 INVITED
18:30-18:45	OPV Products for Renewable Energy Solutions C. Varlamis ¹ , E. Mekeridis ¹ , A. Galatsopoulos ¹ , V. Kyriazopoulos ¹ , S. Fachouri ¹ , L. Patsiouras ¹ , P. Mangelis ¹ , C. Kapnopoulos ² , S. Logothetidis ² ¹ Organic Electronic Technologies, Thessaloniki Greece ² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece		18:00-18:30 INVITED
18:45-19:00	Efficiency enhanced industrial-compatible organic photovoltaics using roll-to-roll (r2r) nanoimprint lithography M.A. Yakoob ¹ , J. Lamminaho ¹ , A. Prajapati ³ , K. Petersons ² , H.G. Rubahn ¹ , J. Stensborg ² , G. Shalev ^{3,4} , M. Madsen ¹ ¹ SDU NanoSyd, Mads Clausen Institute, University of Southern Denmark, Sønderborg, Denmark ² Stensborg A/S, Roskilde, Denmark, ³ School of Electrical Engineering, Ben-Gurion University of the Negev, Israel ⁴ The Ilse-Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, Israel		Barrier Paper for Electronic Applications E. Kucukpinar, D. Bauer, K. Noller <i>Fraunhofer Institute for Process Engineering and Packaging IVV, Germany</i>
19:00-19:15	Fully Solution-Processed, Light-Weight, and Ultraflexible Organic Solar Cells E.N. Güler ^{1,2} , A. Distler ¹ , C.J. Brabec ^{1,2,3} , H.-J. Egelhaaf ^{1,2} ¹ Solar Factory of the Future (SFF), ZAE Bayern, Nürnberg, Germany ² i-MEET, Friedrich-Alexander University Erlangen-Nürnberg (FAU), Erlangen, Germany ³ Helmholtz Institute Erlangen-Nürnberg for Renewable Energy (HI ERN), Erlangen, Germany		Safe design of Ag-nanowire on printed paper electronics and its recycling L. Charlet ^{1,2} , B. Zareepolgardani ¹ , G. Deprès ³ , J. Colombani ⁴ , B. Gilbert ⁵ ¹ ISTERre, Institute of Earth Sciences, Univ. Grenoble Alpes, France, ² Eur. Science Institute, France, ³ Arjowiggins Ltd, France, ⁴ Inst. Lumière Matière, Université Claude Bernard Lyon France, ⁵ LBNL, Berkeley, California, USA
19:15-19:30	Semi-transparent Organic Photovoltaics Integrated into Energy Efficient Greenhouses P. Mangelis ¹ , C. Varlamis ¹ , A. Galatsopoulos ¹ , E. Mekeridis ¹ , A. Zachariadis ² , C. Kapnopoulos ² , L. Patsiouras ¹ , V. Kyriazopoulos ¹ , S. Logothetidis ² ¹ Organic Electronic Technologies, Thessaloniki, Greece ² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece		18:30-18:45
19:30-19:45	A Eu-doped organic-inorganic hybrid as a luminescent downshifting coat on organic solar cells for improved performance A. Charas ¹ , J. Farinhas ¹ , S. F. H. Correia ² , L. Fu ² , A. M. P. Botas ² , P. S. André ^{1,3} , R. A. S. Ferreira ² ¹ Instituto de Telecomunicações, Instituto Superior Técnico, Lisboa, Portugal. ² Department of Physics and CICECO—Aveiro Institute of Materials, University of Aveiro, Aveiro, Portugal. ³ Department of Electric and Computer Engineering Instituto Superior Técnico, Universidade de Lisboa, Portugal		Hybrid polymers - solution to barrier improvements F. Somorowsky, S. Amberg-Schwab, P. Wenderoth, K. Emmert, K. Rose <i>Fraunhofer Institute for Silicate Research, ISC (Chemical Coating Technology), Germany</i>
19:45-20:00	Electron transport layer material for printed organic solar cells and the effect of ultraviolet radiation on their stability E. Doudis ¹ , A. Zachariadis ¹ , C. Kapnopoulos ¹ , E. Mekeridis ² , D. Tselekidou ¹ , A. Laskarakis ¹ , S. Logothetidis ¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece ² Organic Electronic Technologies P.C.(OET), Greece		18:45-19:00
			Enhancing the thermoelectric properties of PEDOT:PSS using Cesium salt doping B. Adilbekova ¹ , M. Insan Nugraha ¹ , N. Wehbe ¹ , K. Loganathan ¹ , T. D. Anthopoulos ¹ <i>Materials Science and Engineering, KAUST Solar Center, Thuwal, Kingdom of Saudi Arabia</i>
			19:00-19:15
			Effect of π -bridge length in D- π -A star-shaped small molecules on photophysics and photovoltaic performance in organic solar cells A.L. Mannanov ^{1,2} , Yu.N. Luponosov ¹ , A.N. Solodukhin ¹ , P.S. Savchenko ¹ , B.A.L. Raul ³ , N.M. Surin ¹ , M.S. Pshenichnikov ³ , D.Yu. Paraschuk ^{1,2} , S.A. Ponomarenko ¹ ¹ Enkolopov Institute of Synthetic Polymeric Materials of the Russian Academy of Sciences, Moscow, Russia ² Faculty of Physics, Lomonosov Moscow State University, Leninskie Gory 1/62, 119991, Moscow, Russia ³ Zernike Institute for Advanced Materials, University of Groningen, Groningen, the Netherlands
			19:15-19:30
			Solid-state characterization of organic dyes in OFET fabrication: the case of Tyrian purple L. Pandolfi, A. Giunchi, E. Venuti <i>Industrial Chemistry Department "T. Montanari", University of Bologna, Bologna, Italy</i>
			19:30-19:45
			Increasing Battery Performance by Spatial ALD E. Kremers ¹ , S. Stan ² ¹ SALD B.V. Eindhoven, The Netherlands ² VDL Enabling Technologies Group (VDL ETG), The Netherlands
			19:45-20:00
			Design of Experiments Study of PEDOT:PSS Inkjet Printed Patterns C. Buga ^{1,2} , J.C. Viana ^{1,2} ¹ IPC – Institute for Polymers and Composites, University of Minho, Guimarães, Portugal ² DTx Colab – Digital Transformation, University of Minho, Portugal

Tuesday 6 July 2021

10:30-13:00	Workshop on OLAE Materials 4 (V: ISFOE1) Chair: E. Lidorikis, University of Ioannina, Greece	 		
10:30-11:00 KEYNOTE	Towards a Carbon Net Zero World with Nanoscale Designed Plastic Electronic Energy Harvesting Devices and Systems S. Ravi P. Silva <i>Advanced Technology Institute, University of Surrey, UK</i>		11:00-13:00	Workshop on Real-time Metrology and Quality Control for Nano-Manufacturing 1 (V: ISFOE2) Chair: E. Mekeridis, OET, Greece
11:00-11:30 INVITED	Probing the nanoscale degradation mechanisms of perovskite photovoltaic materials with advanced atomic force microscopy F. A. Castro, F. Richeimer, S. Wood <i>National Physical Laboratory, Hampton Road, Teddington, UK</i>		1100-1130 INVITED	Revolutionizing Flexible & Printed Electronics manufacturing by In-line Metrology, Quality control and Open Innovation A. Laskarakis, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>
11:30-11:45	Efficient OLEDs and OPVs enabled by Self-Assembled Monolayers as Hole Selective Interlayers D. Gkeka ¹ , Y. Lin ¹ , A. Magomedov ² , Y. Firdaus ¹ , D. Kaltsas ³ , H. Faber ¹ , D.R. Naphade ¹ , E. Yengel ¹ , L. Tsetseris ³ , V. Getautis ² , T.D. Anthopoulos ¹ ¹ <i>Materials Science & Engineering, Division of Physical Sciences and Engineering, KAUST, K. Saudi Arabia</i> ² <i>Department of Organic Chemistry, Kaunas University of Technology, Kaunas LT-50254, Lithuania</i> ³ <i>Department of Physics, National Technical University of Athens, Athens GR-15780, Greece</i>		1130-1200 INVITED	Cost-effective and high throughput processing of flexible electronics: from materials to systems and applications L. Petti, G. Cantarella, N. Münzenrieder, P. Lugli <i>Faculty of Science and Technology, Free University of Bozen-Bolzano, Bozen-Bolzano, Italy</i>
1145-1200	Surface-Stabilization of Ultrathin Gold Nanowires for Application as Capacitive Sensors for Flexible Electronics V. Vetri Buratti ¹ , M. Maturi ¹ , A. Bonfiglio ² , L. Sambri ¹ , M. Comes Franchini ¹ ¹ <i>Department of Industrial Chemistry "Toso Montanari", University of Bologna, Bologna, Italy</i> ² <i>Department of Electrical and Electronic Engineering, University of Cagliari, Cagliari, Italy</i>			
12:00-12:15	The Dynamics of Phase Formation and Degradation of 2D Layered Hybrid Perovskites and Low-dimensional Hybrids Containing Oligothiophene Cations M. Mertens ¹ , P-H. Denis ¹ , W.T.M Van Gompel ¹ , K. Van Hecke ² , B. Ruttens ³ , J. D'Haen ³ , L. Lutsen ^{1,3} , D. Vanderzande ^{1,3} ¹ <i>Hybrid Materials Design (HyMaD), Inst. Materials Research (IMO-IMOMECE), Hasselt University, Belgium</i> ² <i>XStruct, Department of Chemistry, Ghent University, Belgium</i> , ³ <i>Associated Lab. IMOMECE, Imec, Belgium</i>		12:00-12:15	New Equipment and Process Concepts for High Precision Roll-to-Plate and High Throughput Roll-to-Roll UV-Nanoimprint Lithography D. Kourkoulos, T. Exlager, H. Rooms, A. Pankratz, T. Kolbusch <i>Coatema Coating Machinery GmbH, Roseller Straße 4, 41539 Dormagen, Germany</i>
12:15-12:30	Photophysical Properties of Benzophenone Based TADF Emitters: A Computational Approach E. Esme Bas ¹ , P. Ulukan ² , A. Monari ² , V. Aviyente ¹ , S. Catak ¹ ¹ <i>Department of Chemistry, Bogazici University, Istanbul, Turkey</i> , ² <i>Université de Lorraine, CNRS, Nancy, France</i>		12:15-12:30	High rate PECVD as game-changer for roll-to-roll production of flexible organic electronics S. Hinze, N. Stöckl, J. Fahlteich, M. Top <i>Fraunhofer FEP Winterbergstrasse 28, 01277 Dresden, Germany</i>
12:30-12:45	Fluorination and chlorination effects on the charge transport properties of the IDIC non-fullerene acceptor: An ab-initio investigation M. Andrea, K. Kordos, E. Lidorikis, D. G. Papageorgiou <i>Department of Materials Science and Engineering, University of Ioannina, Greece</i>		12:30-13:00 INVITED	Interface Engineering through 2D Perovskite Cation Modification: a route towards efficient and stable perovskite solar cells G. Grancini <i>Dipartimento di Chimica e INSTM, Università di Pavia Via Taramelli 12, 27100 Pavia, Italy</i>
12:45-13:00	Vibronic Coherent Photocurrent Generation at the D/A Interface of Organic Heterojunction Diodes Qingzhen Bian <i>Department of Physics, Chemistry and Biology (IFM), Linköping University Linköping, Sweden</i>			
13:00-14:00	Lunch Break	Exhibition-Networking	Poster Display & Presentations: Nanomaterials	Poster Display: Graphene and Related Materials, Biosensors & Bioelectronics, I3D
14:00-16:00	Workshop on OPVs & Perovskite PVs 2 (Perovskites) (V: ISFOE1, L: TIMBER1) Chair: R. Silva, University of Surrey, UK	 	14:00-16:00	Workshop on OLEDs, OTFTs and Wearables 1 (V: ISFOE2, L: TIMBER1) Chair: M. Gioti, LTFN, AUTH, Greece
14:00-14:30 INVITED	Implications of Ferroelectricity in Perovskite Solar Cells H. Röhm ^{1,2} , T. Leonhard ^{1,2} , M. J. Hoffmann ^{2,3} , A. Colmann ^{1,2} ¹ <i>Light Technology Institute, Karlsruhe Institute of Technology, Karlsruhe, Germany</i> ² <i>Material Research Center for Energy Systems, Karlsruhe Institute of Technology, Germany</i> ³ <i>Institute for Applied Materials – Ceramic Materials and Technologies, KIT, Karlsruhe, Germany</i>		14:00-14:30 KEYNOTE	Molecular doping in state-of-the-art organic opto-electronics T. Anthopoulos <i>KAUST Solar Centre, Saudi Arabia</i>
14:30-15:00 INVITED	Incorporation of Peltier coolers on perovskite solar cells D.N. Kossyvakis ¹ , E. Christopoulos ² , V. Raptis ³ , E. V. Christoforou ¹ , P. Falaras ² , A. Kaltzoglou ³		14:30-14:45	Organic Schottky diodes operating above 10 GHz K. Loganathan ¹ , A. D. Scaccabarozzi ¹ , F. Ferrari ² , H. Faber ¹ , B. Adilbekova ¹ , M. Gedda ¹ , E. Yengel ¹ , T. D. Anthopoulos ¹

	<p>¹ School of Mining Engineering and Metallurgy, National Technical University of Athens, Greece ² Institute of Nanoscience and Nanotechnology, NCSR Demokritos, Athens, Greece ³ Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, Athens, Greece</p>		<p>¹ Materials Science & Engineering, Division of Physical Sciences and Engineering, KAUST, Saudi Arabia ² Biological & Environmental Science & Engineering, Division of Physical Sciences and Engineering, KAUST, Saudi Arabia</p>
		14:45-15:00	<p>Main-chain iridium polymeric metallocomplexes as phosphors for organic light emitting diodes K. Andrikopoulos¹, C. Anastasopoulos¹, J. K. Kallitsis^{1,2}, A. K. Andreopoulou^{1,2} ¹ Dept. of Chemistry, University of Patras, Greece, ² Inst. Chemical Engineering Sciences, FORTH/ICE-HT, Patras, Greece</p>
15:00-15:30 INVITED	<p>Layered 2D halide perovskites as natural quantum-well nano-architectures: a symmetry-analysis and ab-initio modeling perspective C. Quarti Laboratory for Chemistry of Novel Chemistry Department of Chemistry, University of Mons, Belgium</p>	15:00-15:15	<p>Fabrication and study of Anthracene-based flexible yellow OLEDs K. Papadopoulos¹, D. Tselekidou¹, V. Kyriazopoulos², S. Kassavetis¹, A. K. Andreopoulou³, K. Andrikopoulos³, J. K. Kallitsis³, S. Logothetidis¹, M. Gioti¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece, ² Organic Electronic Technologies, Thessaloniki, Greece, ³ Department of Chemistry, University of Patras, Greece</p>
		15:15-15:30	<p>Fabrication and study of red-emissive OLEDs based on organometallic iridium complex Ir(dmpq)2(acac) L. Panagiotidis¹, D. Tselekidou¹, V. Kyriazopoulos², A. Laskarakis¹, S. Logothetidis¹, M. Gioti¹ ¹ Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece, ² Organic Electronic Technologies, Thessaloniki, Greece</p>
15:30-16:00 INVITED	<p>High Efficiency Scalable Perovskite Photovoltaics M. Manceau, M. Fievez, O. Ibraikulov, E. Bruhat, N. Lemaitre, S. Cros, M. Matheron, D. Munoz, O. Dupré, S. Berson University of Grenoble Alpes, CEA, LITEN, DTS, LCT, INES, F-38000, France</p>	15:30-15:45	<p>Versatile platform for ultra-sensitive electronic nose based on monolayer organic field effect transistors D.S. Anisimov¹, A.A. Trul¹, V.P. Chekusova¹, A.A. Abramov¹, E.V. Agina¹, S.A. Ponomarenko^{1,2} ¹ Enikolopov Institute of Synthetic Polymeric Materials of Russian Academy of Sciences (ISPM RAS), Moscow, Russia ² Moscow State University, Chemistry Department, Moscow, Russia</p>
		15:45-16:00	<p>Energy barriers and valleys at grain boundaries in ultrathin organic films revealed L.S. Walter^{1,2}, A. Axt³, J.W. Borchert², T. Kammerbauer¹, F. Winterer¹, J. Lenz¹, S.A.L. Weber^{3,4}, R.T. Weitz^{1,2} ¹ Faculty of Physics, Ludwig-Maximilians-University Munich, Germany, ² I. Institute of Physics, Georg-August-University Göttingen, Germany, ³ Max Planck Institute for Polymer Research, Mainz, Germany, ⁴ Department of Physics, Johannes Gutenberg University Mainz, Mainz, Germany</p>
16:00-16:15	<p>Nonlinear Band Gap Function Of Mixed B Site 2D Ruddlesden-Popper Perovskites Via Ab-Initio Calculations C. C. L. Underwood, J. D. Carey, S. R. P. Silva Advanced Technology Institute, Department of Electrical & Electronic Engineering, University of Surrey, UK</p>	16:00-16:15	<p>Ultra-Precise Deposition of Nanomaterials for Flexible Organic Electronics Aneta Wiatrowska, Piotr Kowalczewski, Karolina Fiączyk, Łukasz Witczak, Jolanta Gadzalińska, Mateusz Łysień, Ludovic Schneider, Filip Grnek XTPL SA, Stabłowicka 147, 54-066 Wrocław, Poland</p>

16:00-16:30	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Nanomaterials	Poster Display: Graphene and Related Materials, Biosensors & Bioelectronics, I3D
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16:30-17:45	<p>Workshop on OPVs & Perovskite PVs 3 (Perovskite PVs) (V: ISFOE1) Chair: A. Laskarakis, LTFN, AUTH, Greece</p> 	16:30-17:45	<p>Workshop on Real-time Metrology and Quality Control for Nano-Manufacturing 2 (V: ISFOE3, L:TIMBER 1) Chair: E. Mekeridis, OET, Greece</p> 	16:30-17:45	<p>Workshop on OLEDs, OTFTs and Wearables 2 (V: ISFOE2) Chair: C. Boeffel, FhG-IAP, Germany</p> 
16:30-17:00 KEYNOTE	<p>The Role of Interfacial and Bulk Morphology on Organic Solar Cell Performance Thuc-Quyen Nguyen Center for Polymers & Organic Solids and Dept of Chemistry & Biochemistry, University of California, Santa Barbara, USA</p>	16:30-17:00 INVITED	<p>Novel results on in-line and in-situ quality control of organic, inorganic and hybrid semiconductors C. Camus LayTec AG, Berlin Germany</p>	16:30-17:00 INVITED	<p>Organic Vapor Phase Deposition (OVPD[®]) of OLED for Organic Display and Lighting Applications P.K. Baumann APEVA SE, Dornkaulstr. 2, 52134 Herzogenrath, Germany</p>
17:00-17:30 KEYNOTE	<p>Predicting the optimum blend composition in organic solar cells by combining high throughput screening methods and machine learning algorithms M. Campoy-Quiles Institute of Materials Science of Barcelona, ICMAB-CSIC, Spain</p>	17:00-17:15	<p>Optimization of In-line on-the-fly R2R laser scribing process for fully R2R printed semi-transparent flexible OPV modules C. Kapnopoulos¹, E. Mekeridis², A. Zachariadis¹, A. Laskarakis¹, S. Kassavetis¹, C. Gravalidis¹, S. Logothetidis¹ ¹ Nanotechnology Lab LTFN Aristotle University of Thessaloniki, Greece ² OET, Thessaloniki, Greece</p>	17:00-17:15	<p>Real Time controlling and monitoring of Electrode deposition by SE for Organic Light Emitting Diodes fabricated on Cluster OVPD PPL M. Chatzidis, G. Nomikos, A. Zachariadis, C. Gravalidis, A. Laskarakis, M. Gioti, S. Logothetidis Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</p>
		17:15-17:30	<p>Metal mesh fabrication on flexible substrate using selective surface activation induced by laser K. Ratautas, M. Sadauskas, V. Vosylius, V. Vyšniauskas, G. Račiukaitis Center for Physical Sciences and Technology, Vilnius, Lithuania</p>	17:15-17:30	<p>Bright organic light-emitting diodes with ITO-free and flexible electrodes F. Hermerschmidt¹, L. Kinner², T. Dimopoulos², G. Ligorio¹, E. J. W. List-Kratochvil^{1,3} ¹ Humboldt-Universität zu Berlin, Institut für Physik, Institut für Chemie, IRIS Adlershof, Berlin, Germany, ² AIT Austrian Institute of Technology, Center for Energy, Photovoltaic Systems, Vienna, Austria, ³ Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany</p>




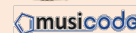

17:30-17:45	Efficient Charge Transport Enables High Efficiency in Dilute Donor Organic Solar Cells N. Yao ¹ , J. Wang ² , Z. Chen ³ , Q. Bian ¹ , Y. Xia ⁴ , R. Zhang ¹ , J. Zhang ⁵ , H. Zhu ³ , Y. Zhang ² , F. Zhang ¹ ¹ IFM, Linköping University, Sweden, ² Sch. Chemistry, Beijing Adv. Innovation Center Biomedical Engineering, Beihang University, P.R.China, ³ State Key Lab Modern Optical Instrumentation, Center for Chemistry of High-Performance & Novel Materials, D. Chemistry, Zhejiang Un. Hangzhou, P. R. China, ⁴ IMO-IMOMECA, Hasselt Univ., Belgium, ⁵ Nat. Cent. Nanoscience, Beijing, P. R. China	17:30-17:45	Solar film production in a laser-based roll-to-roll process assisted by inline process control L. Pongratz ¹ , M. Brosda ¹ , K. Lange ¹ , F. Kiel ² , C. Esen ² , V. Wirth ³ , J. Koc-Richter ⁴ , H. Rooms ⁴ , T. Behrendt ⁵ , J. Ortmann ⁵ ¹ Fraunhofer Institute for Laser Technology ILT, Aachen, Germany; ² Chair of Applied Laser Technologies LAT at Ruhr Universität Bochum, Germany; ³ LIMO GmbH, Dortmund, Germany; ⁴ Coatema Coating Machinery GmbH, Dormagen, Germany; ⁵ Ortmann Digitaltechnik GmbH, Attendorn, Germany	17:30-17:45	Integration of OLEDs in textiles: approaches, challenges, limitations and perspectives J. Hesse ¹ , A. Philipp ¹ , C. Keibler-Willner ¹ Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Winterbergstraße 28, 01277 Dresden, Germany
17:45-18:00	Towards Commercially Printable high efficiency OPV modules for indoor applications S. Ben Dkhil, F. Archet, D. Fredj, M. Parmentier, B. Cruchon, E. Faupin Dracula Technologies, Valence, France	17:45-18:00	Development of laser processing modules for Perovskite PV, battery cells and printed electronics research St. Bergfeld Bergfeld Lasertech GmbH, Aachen, Germany, University of Applied Science Aachen, Jülich, Germany		

18:30
UTC/GMT+3**PLENARY SESSION**
(V: FORUM, L: CRYSTAL)

18:30-19:00		Introduction by Prof. S. Logothetidis, ISFOE21 & NN21 Chairman
19:00-19:30		Evolution of materials in future vehicles: a new paradigm for the automotive components Dr. Nello Li Pira Global Materials R&I and Roadmaps Manager, Fiat Research Centre, Italy
19:30-20:00		From molecules to nanocolloids to suprananocolloids Prof. Eugenia Kumacheva Distinguished Professor of Chemistry, U. of Toronto, Canada
20:00-20:30		Electronics on the Brain Prof. George Malliaras Prince Philip Professor of Technology, University of Cambridge, UK



Wednesday 7 July 2021


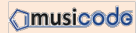
10:30-13:00	Workshop on Real-time Metrology and Quality Control for Nano-Manufacturing 3 (V:ISFOE1, L:CRYSTAL) Chair: A. Laskarakis, LTFN, Aristotle University of Thessaloniki, Greece				
10:30-11:00 KEYNOTE	The pathway to a printed electronic industry – Digital production – Artificial Intelligence for process performance improvement and sustainability in the production processes for coating, printing & laminating T. Kolbusch, D. Kourkoulos, J. Koc-Richter, T. Exlager <i>Coatema Coating Machinery GmbH, Dormagen, Germany</i>		11:00-13:00	I3D Conference Session 1 (V: I3D Session) Chair: I. Zergioti, NSCR Demokritos, Greece	
11:00-11:30 INVITED	Large Scale Manufacturing of fully printed Organic Photovoltaics (OPVs). E. Mekeridis ¹ , C. Varlamis ¹ , A. Galatsopoulos ¹ , V. Kyriazopoulos ¹ , S. Fachouri ¹ , L. Patsiouras ¹ , P. Mangelis ¹ , C. Kapnopoulos ² , A. Zachariadis ² , A. Laskarakis ² , S. Logothetidis ² ¹ <i>Organic Electronic Technologies, Thessaloniki Greece</i> ² <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>		11:00-11:30 INVITED	Criteria, Challenges, and Recent Advances in Translational Bioinks Y. Gu, A. Forget, V. Prasad Shastri <i>Institute for Macromolecular Chemistry, University of Freiburg Germany</i>	 
11:30-11:45	New Digital Printing Technology of Efficient Dye-Sensitized Solar Cells (DSSCs) M. Raissi, ¹ Y. Pellegrin, ² F.X. Lefevre, ² M. Boujtita, ² D. Rousseau, ¹ T. Berthelot, ¹ F. Odobel ² ¹ <i>KELENN Technology, Igny, France</i> , ² <i>Université LUNAM, Université de Nantes, CNRS, France</i>		11:30-12:00 INVITED	Engineering spinal cord organoids with neural co-cultures in alginate fibers O. M. Fannon, A. Bithell ² , E. Delivopoulos ¹ ¹ <i>School of Biological Sciences, U. of Reading, UK</i> ² <i>School of Pharmacy, U. of Reading, UK</i>	11:30-11:45 Development of automotive components with fully embedded functionalities for de-icing and anti-icing operations J. Silva ¹ , C. Furtado ¹ , A. Poças ¹ , E. Oliveira ¹ , J. Pedro ¹ , V. Machado ¹ , R. Lobo ² , S. Gomes ² , R. Freitas ³ ¹ – <i>CeNTI – Centre for Nanotechnology and Smart Materials, Portugal</i> ² – <i>Doureca – Produtos Plásticos, Lda. Lugar De São Bento, Portugal</i> ³ – <i>PIEP – Polo de Inovação em Engenharia de Polímeros, Universidade do Minho Campus de Azurém, Portugal</i>
11:45-12:00	High accuracy R2R Printed electronics alignment through registration H. Rooms ¹ , J. Koc ¹ , A. Takaluoma ² , T. Karhu ² , T. Kolbusch ¹ ¹ <i>Coatema Coating Machinery GmbH, Roseller Straße 4, 41539 Dormagen, Germany</i> , ² <i>Offcode Oy, Valtatie 67, Oulu 90500, Finland</i>				11:45-12:00 Use of polarized light for the assessment of new generation display F. Scaffidi Muta ^{1,2} , G. Deninno ² , M.M. Dugand ¹ , N. Li Pira ¹ ¹ <i>Materials Engineering, Methods and Tools, C.R.F. S.C.p.A, Italy</i> ² <i>Physics Department, University of Torino, Torino, Italy</i>
12:00-12:15	From Laboratory to Production –How to overcome the challenges of Upscaling T. Exlager, H. Rooms, J. Koc-Richter and D. Kourkoulos <i>Coatema Coating Machinery GmbH, Germany</i>		12:00-12:30 INVITED	Hierarchically structured 3D bioprinting for tissue engineering A. Sendemir ^{1,2} ¹ <i>Dept. of Bioengineering, Ege U., Turkey</i> ² <i>Dept. of Biomedical Technologies, Ege U., Turkey</i>	12:00-12:15 Flexible Laser Induced Graphene-based Micro-Supercapacitors A. Morengi ¹ , G. Magnani ¹ , S. Scaravonati ¹ , M. Sidoli ¹ , L. Fornasini ² , G. Bertoni ³ , M. Ricco ¹ , D. Pontiroli ¹ ¹ <i>Department of Mathematical, Physical and Computer Sciences, University of Parma, Italy</i> , ² <i>CNR-ICCOM Institute, Pisa, Italy</i> , ³ <i>CNR, Institute of Nanoscience, Modena, Italy</i>
12:15-12:45 INVITED	Organic Photovoltaics Quality Control by Pulsed-Phase Thermography R. Meitzner ^{1,2} , H. Kruschke ³ , J.B. Slowik ^{1,2} , U.S. Schubert ^{1,2} , H. Hoppe ^{1,2} ¹ <i>Center for Energy and Environmental Chemistry Jena (CEEC Jena), Friedrich Schiller University Jena, Jena, Germany</i> ² <i>OMC, Friedrich Schiller University Jena, Germany</i> ³ <i>InfraTec GmbH Infrarotsensorik und Messtechnik, Dresden, Germany</i>		12:30-13:00 INVITED	Prototyping of Bespoke Bioelectronic Interfaces that are Soft and Multi-modal I. R. Minev <i>Dept. of Automatic Control and Systems Engineering, U. of Sheffield, UK</i>	12:30-12:45 Toxic Gas Detection via Organic Field-Effect Transistors A. Trul, D. Anisimov, V. Chekusova, A. Abramov, E. Agina, S. Ponomarenko <i>Enikolopov Institute of Synthetic Polymeric Materials of Russian Academy of Sciences, Russian Federation</i>
12:45-13:00	Inline Imaging Photoluminescence for roll-to-roll organic PV line T. Brigancz, Zs. Sánta, Z. Kiss, F. Korsós <i>SEMILAB, Hungary</i>				12:45-13:00 Numerical exploration of spiking neuron circuits in organic pOTFT technology L.E. Calvet ¹ , P. Coulson ¹ , B. Iniguez Nicolau ² , K. Romanjek ³ ¹ <i>Center for Nanoscience and Nanotechnology, CNRS-Université Paris-Saclay, Palaiseau, France</i> , ² <i>Dept. Electronic, Electrical and Automatic Control Engineering, University Rovira i Virgili, Tarragona, Spain</i> ³ <i>CEA-LITEN, 38000 Grenoble, France</i>

13:00-14:00	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Graphene and Related Materials, Biosensors & Bioelectronics, I3D		Poster Display: Nanomaterials
14:00-16:00	Workshop on OLEDs, OTFTs and Wearables 4 (V: ISFOE2) Chair: K. Andreopoulou, Univ. of Patras, Greece	 			14:00-16:00 Computational Modelling of Materials, Devices & Processes 4 (ISFOE21 + NN21) (V: MODEL-Session) Chair: V. Constantoudis  
14:00-14:30 INVITED	Prospects of Organic Multi-Valued Logic Systems Chang-Hyun Kim <i>Department of Electronic Engineering, Gachon Univ., Republic of Korea</i>		14:30-16:00 I3D Conference Session 2 (V: I3D Session, L: Timber 2) Chair: V. Prasad Shastri 	14:00-14:30 INVITED	Computational modeling of polymer-based nanostructured materials: A synergy between simulations and data-driven algorithms V. Harmandaris <i>Computation-based Science and Technology Research Center, The Cyprus In. & Dept. of Mathematics and Applied Mathematics, U. of Crete, GR-71409, IACM FORTH, GR-71110 Heraklion, Crete, Greece</i>
14:30-15:00 INVITED	Printed Batteries – New Applications and Funding M. Krebs <i>R&D department, VARTA Microbattery, Ellwangen, Germany</i>		14:30-15:00 INVITED	14:30-14:45 Laser precise printing for biomedical applications I. Zergioti <i>School of Applied Mathematics and Physical Sciences, National Technical U. of Athens, Greece</i>	14:45-15:00 Curved Core-Shell nanowires: Comparison an Experiment and Finite Element Method Simulation S. Kryvyi, S. Kret <i>In. of Physics Polish Academy of Sciences, Warsaw, Poland</i>
15:00-15:15 V	A 13.56 MHz Rectifier Based on Fully Inkjet Printed Organic Diodes F. A. Viola ¹ , B. Brigante ¹ , P. Colpani ¹ , G. Dell'Erba ¹ , V. Mattoli ² , D. Natali, M. Caironi ¹ ¹ Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Milano, Italy ² Center for Micro-BioRobotics, Istituto Italiano di Tecnologia, Italy		15:00-15:15	3D Printable Conducting Polymers for Bioelectronics David Mecerreyes, Antonio Dominguez Alfaro, Nuria Allegret, Gisela Luque, Naroa Lopez, Miryam Criado <i>POLYMAT U. of the Basque Country (UPV/EHU), Spain</i>	15:00-15:15 Inter-diffusion and microstructure of Ti-Nb alloys T. Leontiou ¹ , L. Papadakis ¹ , A. Evangelou ² , T. Kyratsi ² , R. Stylianou ² and D. Photiou ³ ¹ Frederick U., Cyprus, ² Univ. Cyprus, Cyprus, ³ Simlead, Cyprus
15:15-15:30	A sub 150 nanometers thick and ultra-conformable solution processed all-organic transistor F. A. Viola ¹ , J. Barsotti ¹ , Virgilio Mattoli ² , M. Caironi ¹ ¹ Center for Nano Science and Technology @PoliMi, Istituto Italiano di Tecnologia, Italy ² Center for Micro-BioRobotics, Istituto Italiano di Tecnologia, Italy		15:15-15:30	Laser-induced printing of stem cells: a powerful tool for biological applications Adrien Casanova ¹ , J. D Robin ² , F. Magdinier ² , P. Delaporte ¹ , P. Alloncle ¹ ¹ Aix-Marseille U., CNRS, LP3, Laser Plasma and Photonic Processes Lab. UMR 7341, France ² Aix-Marseille U., INSERM, Marseille Medical Genetics, France	15:15-15:30 Spatial distribution analysis of nanomechanical properties of heterogeneous materials by applying Machine Learning algorithms through nanoindentation P. Varytis <i>Innovation in Research & Engineering Solutions (IRES), Belgium</i>
15:30-15:45	Development of printed humidity and temperature sensors for smart RFID labels with wireless energy charging and communication functionalities S. Reis ¹ , J. Pimenta ¹ , R. Mesquita ¹ , J. Silva ¹ , A. Pinto ¹ , J. Matos ¹ , S. Bogas ¹ , J. Fonseca ¹ , H. Costa ¹ , G. Silva ² , P. Castanheira ² , P. Soeiro ² and J. Sousa ² ¹ CeNTI - Centre for Nanotechnology and Smart Materials, Portugal ² Viatel, S.A. / Visabeira, SGPS, Portugal		15:30-15:45	Atomic Layer 3D printing I. Kundatra ¹ , M. Plakhotnyuk ¹ , J. Bachmann ^{1,2} , M. Barr ² , P. Brüner ³ ¹ ATLANT 3D Nanosystems, Denmark ² Friedrich-Alexander Universität Erlangen-Nürnberg, Germany ³ IONTOF GmbH, Münster, Germany	15:30-15:45 NanoSolveIT H2020 Project: Nanoinformatics tools for the in silico assessment and the safe by design of nanomaterials A. Afantitis <i>NovaMechanics Ltd, Cyprus</i>
15:45-16:00	Toward High-Performance Solution-Processed Organic Field-Effect Transistors via Doping with Nitroaromatics P. Ghamari, M. R. Niazi, D. F. Perepichka <i>Department of Chemistry, McGill University Montreal, Quebec, Canada</i>		15:45-16:00	Design and manufacturing of thermal actuators using 3D and screen printing K.M.B. Jansen, Julius Hofman, Yu Song <i>Faculty of Industrial Design Engineering, Delft U. of Technology</i>	
16:00-16:30	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Graphene and Related Materials, Biosensors & Bioelectronics, I3D		Poster Display: Nanomaterials



16:30-18:00	Workshop on OLEDs, OTFTs and Wearables 5 (V: ISFOE2, L: CRYSTAL) Chair: M. Krebs, Varta, Germany   	16:30-19:00	I3D Conference Session 3 (ISFOE21+NN21) (V: I3D Session) Chair: E. Delivopoulos  	16:30-19:00	Workshop on Computational Modelling of Materials, Devices & Processes 4 (ISFOE21 + NN21) (V:MODEL Session) Chair: I. Milosevic  
16:30-17:00 INVITED	Solution processing of OLEDs and QD-LEDs – perspectives from large area processing to high resolution printing C. Boeffel, M. Gensler, Y. Kim, A. Wedel <i>Fraunhofer IAP, Functional Materials and Devices, Potsdam, Germany</i>	16:30-17:00 INVITED	Two-Photon Grayscale Lithography Basics and applications A. Legant, M. Thiel, Y. Tanguy, N. Lindenmann, A. Tungal, R. Reiner, M. Blaicher, J. Hoffmann, T. Sauter, F. Niesler, T. Gissibl, A. Radke <i>Nanoscribe GmbH & Co. KG, Germany</i>	16:30-17:00 INVITED	Classification of Quasi-one-dimensional Topological Crystalline Phases S. Dmitrović, Z. Popović, T. Vuković, I. Milošević, M. Damjanović <i>NanoLab, Faculty of Physics, U. of Belgrade, Serbia</i>
17:00-17:30 INVITED	High Molecular Weight Printable Aromatic Polyethers for OLEDs A. K. Andreopoulou, K. Andrikopoulos, C. Anastopoulos, J. Kallitsis <i>Department of Chemistry, University of Patras, 26504 Patras, Greece</i>	17:00-17:30 INVITED	3D printed nanocomposite materials and (meta)materials for energy applications Z. Viskadourakis, A. Tasolamprou, O. Tsilipakos, G. Kenanakis <i>In. of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, Greece</i>	17:00-17:30 INVITED	Mathematical and Computational Nanometrology: From error propagation to machine learning techniques V. Constantoudis ^{1,2} , G. Papavieros ^{1,2,3} , E. Gogolides ^{1,2} ¹ INN, N.C.S.R. Demokritos, Greece ² Nanometrisis p.c., Agia Paraskevi, Greece ³ Aristotle U. of Thessaloniki, Greece
17:30-17:45	Optical, Photophysical and Electroemission Studies on Single Layer White OLEDs D. Tselekidou, K. Papadopoulos, V. Kyriazopoulos, A. K. Andreopoulou, K. Andrikopoulos, J. K. Kallitsis, A. Laskarakis, S. Logothetidis, M. Gioti			17:30-17:45	Hole Transfer in Open Carbyne Chains C. Simserides, A. Morphis, K. Lambropoulos, <i>National and Kapodistrian U. of Athens, Dept. of Physics, Greece</i>
17:45-18:00	Minimization of the contact resistance in organic transistors: A reality check J. W. Borchert ¹ , H. Klauk ² , S. Ludwigs ³ , R. T. Weitz ¹ ¹ I. Physics Institute, University of Goettingen, Germany ² Max Planck Institute for Solid State Research, Stuttgart, Germany ³ Institute of Polymer Chemistry, University of Stuttgart, Germany			17:45-18:00	How structural dynamics affect hole transfer in B-DNA: A Combination of MD, RT-TDDFT and TB M. Mantela ¹ , A. Morphis ¹ , K. Lambropoulos ¹ , C. Simserides ¹ , R. Di Felice ² ¹ National and Kapodistrian U. of Athens, Dept. of Physics, Greece ² Dept. of Physics and Astronomy and Dept. of Quantitative and Computational Biology, U. of Southern California, USA
18:00-18:15	Molecular doping of 2D organic semiconductor films for light-emitting transistors Alexey V. Kuevda* ^{1,2} , Vasily A. Trukhanov ^{2,3} , Oleg V. Borshchev ² , Dmitry Yu. Paraschuk ^{2,3} ¹ – Skolkovo Institution of Science and Technology ² – Enikolopov Institute of Synthetic Polymeric Materials, Russian Academy of Sciences ³ – Faculty of Physics, Lomonosov Moscow State University				


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10:30-13:00	Workshop on OLEDs, OTFTs and Wearables 6 (V:ISFOE1, L:CRYSTAL) Chair: M. Giotti, LTFN, AUTH, Greece		11:00-13:00	Workshop on Graphene & Related Materials 1 (ISFOE21-NN21) (V: 2D MAT Session, L: Timber 1) Chair: A. Di Bartolomeo		
10:30-11:00 KEYNOTE	Printed Energy Harvesting and Storage for a Sustainable Internet of Things D. Lupo <i>Lab Future Electronics, Faculty of Information Technology and Communication Sciences, Tampere University, Tampere, Finland</i>		10:30-11:00 KEYNOTE	Twistrionics: Electron localization in stacked layers of 2D materials E. Kaxiras Harvard U., USA	10:30-13:00	Open Innovation, Standardization & Business Development 1 (V:ISFOE2, L:TIMBER2) Chair: A. Laskarakis, LTFN, AUTH, Greece 
11:00-11:30 INVITED	Screen printing large area flexible and wearable electronics T. Claypole, A. Claypole, J. Claypole <i>Welsh Centre for Printing and Coating, College of Engineering, Swansea University, UK</i>		11:00-11:30 INVITED	Infrared light detection with graphene E. Lidorikis <i>Department of Materials Science and Engineering, University of Ioannina, Institute of Materials Science and Computing, University Research Center of Ioannina, 45110 Ioannina, Greece</i>	11:00-11:30 INVITED	Research and Innovation in Nanotechnologies for the next Programming Period 2021 - 2027 A. Chatziparadeisis <i>Consultant, Former Director In General Secretariat of Research and Innovation, Greece</i>
11:30-11:45	Development of electroactive fibres for integration into textile substrates J. Silva, N. Durães, N. Cardoso, C. J. Silva, J. Gomes, D. Silva, A. Pinto, A. Marques, J. Gonçalves, J. Dias, M. Ribeiro <i>Centro de Nanotecnologia e Materiais Técnicos, Funcionais e Inteligentes (CeNTI), Portugal</i>		11:30-12:00 INVITED	Topological edge/end states in atomically precise graphene nanoribbons: their known and unknown properties and origin A. D. Zdetis <i>Department of Physics, University of Patras, Greece</i>	11:30-12:00 INVITED	Presentation of the Horizon Europe Work Programme 2021-2022 for the Cluster "Digital, Industry & Space" M. Chachamidou National Delegate in Cluster "Digital, Industry & Space" of Horizon Europe
11:45-12:00 PROJECT	Smart Guard Locker: Integrating hybrid printed electronics with IMD Y.C. Lau ¹ , B.R. Clifford ¹ , J. Castan ² , R. Herrero ³ , P. Pena ⁴ , L. Mendez ⁵ , S. Barasoain ⁶ , J. Cano ⁷ , T.C. Claypole ¹ ¹ Welsh Centre for Printing and Coating, College of Engineering, Swansea University, UK, ² AIMPLAS, Valencia, Spain, ³ NAITEC, C/Tajonar, Navarra, Spain, ⁴ ASADA MESH Co. Ltd. Osaka, Japan, ⁵ Mateprincs, Spain, ⁶ Functional Print Cluster & Plataforma Tecnológica ³ NEO, Pamplona, Spain, ⁷ EP BIDASOA, Guipuzkoa, Spain		12:00-12:30 INVITED	Quantum confinement effects on the phonon-induced bandgap renormalization of graphene quantum dots M. Zacharias and P. Kelires <i>Dept. of Mechanical and Materials Science Engineering, Cyprus University of Technology, Cyprus</i>	12:00-12:15	In-line and Real-time Nano-characterization technologies for the high yield manufacturing of Flexible Organic Electronics C. Kapnopoulos <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i>
12:00-12:15	Flexible Solar Cells on Textiles A. Panagiotopoulos, K. Kiskira, M. Papoutsidakis, G. Priniotakis <i>University of West Attica, Department of Industrial Design and Production Engineering, Thivon 250 & P. Ralli, GR-12244 Egaleo, Attica, Greece</i>		12:15-12:30	Humidity and Temperature textile sensor based on Graphene J. Tavares ¹ , I. Domingos ¹ , H. Alves ^{1,2} ¹ CICECO, University of Aveiro, 3810-193, Aveiro, Portugal ² IST, University of Lisbon, 1049-001, Lisbon, Portugal	12:15-12:30	NANOPAT: Process Analytical Technologies for Industrial Nanoparticle Production M. Münzberg Institute of Chemistry, Universität Potsdam, Germany
12:30-12:45	Self-Actuated Thermal Comfort Clothing with Dielectric Elastomers G. Stiubianu ¹ , C. Tugui ¹ , A. Bele ¹ , M. Dascalu ¹ , A. Bargan ¹ , C. Ursu ² , C. Racles ¹ , M. Cazacu ¹ ¹ Lab of Inorganic Polymers, Inst. Macrom. Chem. Petru Poni Iasi, Romania ² Dept. Physics, Inst. Macromolecular Chemistry Petru Poni Iasi, Romania		12:30-12:45 PROJECT	Thin Wide-Band Composite Films for Electromagnetic Shielding V. Barsukov, I. Senyk, Ya. Kuryptia, O. Butenko, V. Khomenko <i>Dept. of Electrochemical Power Engineering and Chemistry, Kyiv National U. of Technologies and Design, Ukraine</i>	12:30-12:45 PROJECT	Open Innovation Ecosystem for Sustainable NanoFunctionalized Flexible Surfaces/H2020 FF2S J. Fahlteich <i>Fraunhofer FEP, Germany</i>
12:45-13:00	Pure Continuous Aluminum Conductive Printing for High Volume R2R Circuits Heaters, Sensor Mounts, Touch Switches, Antennas & Chip-Less RFID D. Taylor <i>SPF-Inc Metallograph, 101 Old York Road, New Hope PA 18938, USA</i>		12:45-13:00	In-situ decoration of laser-scribed graphene with TiO2 nanoparticles for energy storage applications D. Pontiroli ¹ , L. Fornasini ^{1,2} , G. Magnani ¹ , S. Scaravonati ¹ , M. Sidoli ¹ , D. Bersani ¹ , G. Bertoni ³ , L. Aversa ⁴ , R. Verucchi ⁴ , M. Riccò ¹ ¹ U. of Parma, Parma, Italy, ² CNR-ICCOM In., Pisa, Italy, ³ CNR, In. of Nanoscience, Modena, Italy, ⁴ IMEM-CNR, Povo (TN), Italy	12:45-13:00 PROJECT	SmatEEs2: A Digital Innovation Hub on Flexible & Wearable Electronics J. Gavillet CEA-Liten, Grenoble, France
13:00-14:00	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Graphene and Related Materials, Biosensors & Bioelectronics, I3D		Poster Display: Nanomaterials	

14:00-16:00	Open Innovation, Standardization & Business Development 2 (V-ISFOE2, L:CRYSTAL) Chair: E. Lidorikis, University of Ioannina, Greece	 	14:00-16:00	Workshop on Graphene & Related Materials 2 (ISFOE21-NN21) (V: 2D MAT Session) Chair: M. Zacharias	14:00-16:00	Workshop on Biosensors & Bioelectronics 2 (ISFOE21-NN21) (V:BIO-Session) Chair: F. Biscarini
14:00-14:30 INVITED PROJECT	OntoCommons.eu: Ontology-driven data documentation for Industry Commons N. Adamovic ¹ , H. Karray ² ¹ TU Wien, Institute of Sensor and Actuator Systems (ISAS), Vienna, Austria, ² Ecole Nationale d'Ingenieurs de Tarbes (ENIT), France		14:00-14:30 INVITED	1D and 2D Carbon and Related Nanomaterials – Local Structural and Spectroscopic Studies R. Arenal ^{1,2,3} ¹ (INMA), CSIC-U.Spain, ² Laboratorio Microscopias Avanzadas, U. Zaragoza, Spain, ³ Fundacion ARAID, Zaragoza, Spain	14:00-14:30 INVITED	Multiscale bioelectronics with nanostructured carbide MXenes F. Vitale Depts of Neurology, Bioengineering, Physical Medicine and Rehabilitation, Univ. of Pennsylvania, USA
14:30-15:00 INVITED	Integration of material modelling with business decision support systems C. Kavka Research and Development Department, ESTECO SpA Area Science Park, Trieste, Italy		14:30-15:00 INVITED	Two-dimensional transition metal dichalcogenides in field-effect devices A. Di Bartolomeo ^{1,2} , E. Faella ^{1,2} , F. Giubileo ² , A. Grillo ^{1,2} , A. Pelella ^{1,2} ¹ Physics Department "E.R. Caianello", University of Salerno, Italy, ² CNR-Spin, Salerno, Italy	14:30-15:00 INVITED	Dynamic Devices for Neural Interfacing C. M. Proctor U. of Cambridge, UK
15:00-15:30 INVITED PROJECT	H2020 OYSTER - novel metadata structures for advanced materials characterisation M. Sebastiani Università degli studi "Roma Tre", Engineering Department, Rome Italy		15:00-15:30 INVITED	Low-dimensional Phase-Change Chalcogenides Materials as a Novel Opportunity in Reconfigurable Photonics M. Losurdo ¹ , Y. Gutierrez, ¹ F. Moreno, ² M. Modreanu, ³ M. George, ⁴ C. Cobianu, ⁴ C. Cobet, ⁵ G. Gary, ⁶ J. Soler ⁷ , W. Pernice ⁸ ¹ Institute of Nanotechnology, CNR NANOTEC, Italy ² Dept. Applied Physics, University of Cantabria, Spain, ³ Tyndall National Institute, Ireland ⁴ NANOM MEMS, Romania, ⁵ Johannes Kepler University, Austria, ⁶ TEOX, France, ⁷ VLC Photonics, Spain, ⁸ Physics Institute / Contech, Munster University, Germany	15:00-15:15	Smart Integration of Organic Light-Emitting Transistors with Organic Photodiodes for Ultra-Compact Plasmonic Sensors M. Prosa ¹ , E. Benvenuti ¹ , D. Kallweit ² , P. Pellacani ³ , M. Törker ⁴ , M. Bolognesi ¹ , L. Lopez-Sanchez ³ , F. Marabelli ⁵ , S. Toffanin ¹ ¹ In. of Nanostructured Materials (ISMN), CNR, Italy, ² CSEM, Basel, Switzerland, ³ Plasmore s.r.l., Italy, ⁴ Fraunhofer FEP, Germany, ⁵ Physics Dept., U. Pavia, Italy
					15:15-15:30	Non-enzymatic Glucose Sensor Development Using Dip-Pen Nanolithography Based on Ni(OH) ₂ Meta-chemical Surface Electrode C.J Dobos ¹ , D. Saban ¹ , D. Shamir ² , A. Burg ¹ , M. Zohar ³ ¹ Dept. of Chemical Engineering, Shamoon College of Engineering, Beer-Sheva, Israel ² Nuclear Research Center, Beer-Sheva, Israel ³ Dept. of Electrical and Electronics Engineering, Shamoon College of Engineering, Beer-Sheva, Israel
15:30-15:45 PROJECT	Linked CHADA and MODA for GHz characterisation and modelling of energy materials in the H2020 NanoBat project M. Celuch, M. Olszewska-Placha QWED Sp. z o.o., ul. Krzywickiego 12 lok. 1, Warsaw, Poland		15:30-16:00 INVITED	Towards Transition Metal Dichalcogenide electronics G. Deligeorgis ^{1,2} , F. Iacovella ¹ , G. Fanourakis ^{1,3} , N.Armaou ² ¹ Foundation for Research and Technology, Institute of Electronic Structure and Laser, Irakleio, Crete, Greece ² University of Crete, Physics Department, Heraklion, Crete, Greece ³ University of Crete, Material science and Technology Department, Heraklion, Crete, Greece	15:30-15:45	Poly acrylic acid-based hydrogel actuator fabricated via Digital Light Projection Y. Wang ^{1,2} , N. Alizadeh ^{1,2} , M. Barde ^{1,2} , B. Beekingham ^{1,2} , M. L. Auad ^{1,2} ¹ Center for Polymers and Advanced Composites, Auburn U., Auburn, AL ² Dept. of Chemical Engineering, Auburn U., Auburn, AL.
15:45-16:00 PROJECT	Multiscale modelling and characterization to optimize the manufacturing processes of Organic Electronics materials and devices (CORNET) M. Kanta HOPE-A, Greece				15:45-16:00	Printed sensors for automation and improvement of biotechnological processes and healthcare devices M. Campos ¹ , R. Carvalho ¹ , A. Poças ¹ , V. Miranda ¹ , F. Afonso ¹ , A. Leite ¹ , J. Matos ¹ , P. Henriques ¹ , D. Baş ² , O. Canberli ³ , J. Redol ^{4,5} , M. Ribeiro ^{4,5} ¹ (CeNTI), Portugal, ² Turgut İllaçları Turkey, ³ Robotek Otomasyon Teknolojileri Ltd., Turkey, ⁴ Neutroplast, Portugal, ⁵ Beyonddevices, Portugal

16:00-16:30	Coffee Break	Exhibition-Networking	Poster Display & Presentations: Graphene and Related Materials, Biosensors & Bioelectronics, I3D	Poster Display: Nanomaterials
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16:30-18:00	Open Innovation, Standardization & Business Development 2 (V-ISFOE2, L:CRYSTAL) Chair: A. Laskarakis, LTFN, AUTH, Greece	 	14:00-16:00	Workshop on Graphene & Related Materials 2 (ISFOE21-NN21) (V: 2D MAT Session) Chair: M. Losurdo	14:00-16:00	Workshop on Biosensors & Bioelectronics 2 (ISFOE21-NN21) (V:BIO-Session) Chair: F. Vitale
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16:30-17:00 INVITED PROJECT	An experimentally-validated multi-scale materials, process and device modeling & design platform enabling non-expert access to open innovation in the organic and large area electronics industry E. Lidorikis University of Ioannina, Greece	16:30-16:45	The True Amphiphilic Nature of Pristine Graphene Flakes A.W. Kuziel ^{1,2} , K.Z. Milowska ³ , P.-L. Chau ⁴ , S. Boncel ² , K.K. Koziol ¹ , M.C. Payne ³ ¹ Enhanced Composites and Structures Center, Cranfield U., Bedfordshire, UK, ² Faculty of Chemistry, Silesian U. of Technology, Gliwice, Poland, ³ TCM Group, Cavendish Lab., U. of Cambridge, Thompson Avenue, Cambridge UK, ⁴ Bioinformatique Structurale, Institut Pasteur, CNRS, Paris, France	16:30-17:00 INVITED	Peripheral nerve interfaces: Optimizing wireless optoelectronic stimulation M. J. Donahue Linköping University, Sweden
		16:45-17:00	Synthesis of 2D Boron Nitride Nanosheets from Ammonia Borane in Inductively Coupled Plasma A. Alrebh, J-L. Meunier Dept. of Chemical Engineering, McGill U., Canada		
17:00-17:30 INVITED PROJECT	Quadruple Helix Innovation Model for modelling supported design of green protective coatings (H2020 VIPCOAT) N. Konchakova ¹ , P. Klein ² ¹ Institute of Surface Science, Helmholtz-Zentrum Hereon, Max-Planck-Strabe 1, D-21502 Geesthacht, Germany ² Fraunhofer Institute for Industrial Mathematics, Fraunhofer-Platz 1, D-67663 Kaiserslautern, Germany	17:00-17:15	Ab initio studies on the synthesis of functionalized 2D silicon sheets through the topochemical reaction of CaSi2 with iodine and acetonitrile D. Kaltsas, P. Pappas and L. Tsetseris Dept. of Physics, National Technical U. of Athens, Greece	17:00-17:30 INVITED	Mobile Health Virus Detection Using Nanoparticles, Smartphones, And Machine Learning H. Shafiee Brigham and Women's Hospital, Harvard Medical School, Boston, USA
		17:15-17:30	Visible Light Emission in Graphene Field Effect Transistors A. Beltaos ^{1,2,5} , A. J. Bergren ¹ , K. Bosnick ¹ , N. Pekas ¹ , S. Lane ² , K. Cui ¹ , A. Matkovic ^{3,4} , A. Meldrum ² ¹ National In. for Nanotechnology, Canada, ² U. of Alberta, Edmonton, Canada, ³ Univ. Belgrade, Serbia		
17:30-18:00 INVITED PROJECT	VIMMP - VIRTUAL MATERIALS MARKETPLACE Welchy Leite Cavalcanti Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, Wiener Strasse 12 – 28359 Bremen, Germany	17:30-17:45	Photosensitive Nano-Graphene-Oxide doped HAPTIC 3D Textile Coatings T.W. Schmidt; Xun You Fujian Huafeng New Materials Co., Ltd. Dongfang Blvd., Dongqiao Industrial Zone, Xiuyu District, Fujian Province, China	17:30-17:45	Sensing applications of biofunctionalized inorganic nanoparticles for the detection of small molecule biomarkers K. Tsimenidis ¹ , A. Orfanos ¹ , S. Dermenoudis ² V. Karagkiozaki ^{1,2} , S. Logothetidis ² ¹ BL Nanobiomed P.C., Greece ² Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece
		17:45-18:00	Two dimensional organic materials for energy and the environment A. Bakandritsos ^{1,2} , J. Kolarik ¹ , I. Obratsov ¹ , M. Otyepka ¹ , R. Zbořil ^{1,2} ¹ Regional Centre of Advanced Technologies and Materials, CATRIN, Czech Republic; ² Nanotechnology Centre, Centre of Energy and Environmental Technologies, VSB–Technical U. of Ostrava, Czech Republic	17:45-18:00	Spatially selective biomolecules immobilization for biosensing applications through contact printing onto chemical micropattern: characterization by TOF-SIMS imaging A. Budkowski ¹ , K. Gajos ¹ , P. Petrou ² , K. Misiakos ³ , I. Raptis ³ , K. Awiuk ¹ , J. Rysz ¹ , S. Kakabakos ² ¹ Inst. of Physics, Jagiellonian U., Poland ² INRaSTES, 3INN, National Center for Sci. Research "Demokritos", Greece
17:15-18:00 VIRTUAL + L: CRYSTAL	Closing Remarks and Discussion End of ISFOE21  5-8 July 2021				

POSTERS

	<p>Nanomaterials: Organic Semiconductors, Electrodes, Barriers, Hybrids and Devices: OPVs, OTFTs, OLEDs</p> <p>POSTER AREA I (13:00-14:00, 16:00-16:30):</p> <p>Poster Display & Presentations: 5 – 6 July</p> <p>Poster Display: 7 - 8 July</p>
PI1-1L	<p>Trifluoromethylphenyl-disubstituted derivatives for efficient RTP and TADF applications</p> <p>R. Keruckiene, J. V. Grazulevicius <i>Department of Polymer Chemistry and Technology, Faculty of Chemical Technology, Kaunas University of Technology, Kaunas, Lithuania</i></p>
PI1-2L	<p>Green solvent-based inks for printed perovskite solar cells</p> <p>Ignacio Brea¹, Silvia Colodrero², Florencia Cecchi¹, Lorenzo Bautista¹, Ana Escobar¹, Ana Milena Cruz² ¹ <i>Surface Chemistry Area, Leitat Technological Center</i> ² <i>Energy Conversion & Photonics Area, Leitat Technological Center Carrer de l'Innovació, 2, Terrassa, Barcelona (Spain)</i></p>
PI1-3L	<p>Organic Solar Cells on Paper Substrates</p> <p>Hamed Javanbakht Lomeri¹, Giuseppina Polino¹, Elena Parmieri², Silvia Orlanducci², Francesca Brunetti¹ ¹ <i>CHOSE (Centre for Hybrid and Organic Solar Energy), Department of Electronic Engineering, University of Rome Tor Vergata, Via del Politecnico 1, 00133 Roma</i> ² <i>Department of Chemical Science and Technologies, University of Rome Tor Vergata, Via della Ricerca Scientifica 1, 00133 Rome, Italy</i></p>
PI1-4L	<p>Optimization of electron transport layer material for fully printed organic solar cells and investigation of the effect of ultraviolet radiation on their stability</p> <p>E. Doudis¹, C. Kapnopoulos¹, E. Mekeridis², C. Varlamis², A. Laskarakis¹, S. Logothetidis¹ ¹ <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i> ² <i>Organic Electronic Technologies P.C.(OET), Greece</i></p>
PI1-5L	<p>Organic light-emitting diode (OLED) based on graphene electrode modified with rhenium oxide</p> <p>Krukowski P.*¹, Udovytka R.², Kowalczyk D.A.¹, Piskorski M.¹, Dabrowski P.¹, Rogala M.¹, Caban P.³, Ciepielewski P.³, Baranowski J.M.³, Dunal R.², Jung J.², Ulanski J.², Klusek Z.¹, Kowalczyk P.¹ ¹ <i>Department of Solid State Physics, Faculty of Physics and Applied Informatics, University of Lodz, Pomorska 149/152, 90-236 Lodz, Poland</i> ² <i>Department of Molecular Physics, Lodz University of Technology, Zeromskiego 116, 90-924 Lodz, Poland</i> ³ <i>Institute of Electronic Materials Technology, Wolczynska 133, 01-919 Warsaw, Poland</i></p>
PI1-6L	<p>Use of 2,2'-di(p-tert-butylphenyl)-6,6'-bibenzoxazole (BBzx) in deep-blue organic light-emitting diodes (OLEDs)</p> <p>El Housseiny Houssein¹, Fery-Forgues Suzanne², Zissis Georges¹, Renaud Cédric¹ ¹ <i>Université de Toulouse III Paul Sabatier, LAPLACE (Laboratoire Plasma et Conversion d'Énergie), 118 route de Narbonne, F-31062 Toulouse, France</i> ² <i>Université de Toulouse III Paul Sabatier, SPCMIB, CNRS UMR 5068, F31062 Toulouse, France</i></p>
PI1-7L	<p>Cesium perovskite as scintillator for high-energy radiation detection</p> <p>M. Kratochvíl¹, T. Musalek², M. Kolibal², M. Weiter¹ ¹ <i>Brno University of Technology, Faculty of Chemistry, Brno, Czech Republic</i> ² <i>Brno University of Technology, Faculty of Mechanical Engineering Technická, Brno, Czech Republic</i></p>
PI1-8L	<p>Design rules for organic and perovskite photovoltaic nano-architectures based on optical simulation</p> <p>A. Laskarakis, E. Prountzou, A. Zachariadis, S. Logothetidis <i>Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece</i></p>
PI1-1V	<p>Optical and morphological characterization of polymeric surfaces for car interiors</p> <p>G. Deninno¹, F. Scaffidi Muta², N. Li Pira² ¹ <i>Physics Department, University of Turin, via Pietro Giuria 1 10125 Torino, Italy</i> ² <i>Materials Engineering, Methods and Tools, C.R.F. S.C.p.A, Strada Torino 50, 10043 Orbassano, TO, Italy</i></p>
PI1-2V	<p>Electrospun fibers electrodes coated with conductive polymers for FOLED applications</p> <p>I.C. Ciobotaru, C.C. Ciobotaru, M. Beregoi, A. Evangelidis, S. Polosan, I. Enculescu <i>National Institute of Materials Physics, Multifunctional Materials and Structures Laboratory Atomistilor str. 405A Bucharest – Magurele, Romania</i></p>
PI1-3V	<p>Electric Field Facilitating Hole Transfer in Non-Fullerene Organic Solar Cells with A Negative HOMO Offset</p> <p>Yanfeng Liu¹, Jianyun Zhang², Guanqing Zhou³, Feng Liu³, Xiaozhang Zhu², Fengling Zhang¹ ¹ <i>Department of Physics, Chemistry and Biology, Linköping University, SE-581 83 Linköping, Sweden.</i> ² <i>Beijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China.</i> ³ <i>School of Chemistry and Chemical Engineering, Center for Advanced Electronic Materials and Devices, Shanghai Jiao Tong University, Shanghai 200240, China.</i></p>
PI1-4V	<p>Directing the self-assembly of conjugated organic ammonium cations in low-dimensional perovskites by halide substitution</p> <p>P-H. Denis¹, M. Mertens¹, W.T.M. Van Gompel¹, K. Van Hecke², B. Ruttens³, J. D'Haen³, L. Lutsen³, D. Vanderzande^{1,3} ¹ <i>Hybrid Materials Design (HyMaD), Institute for Materials Research (IMO-IMOMECE), Hasselt University, Martelarenlaan 42, B-3500 Hasselt, Belgium</i> ² <i>XStruct, Department of Chemistry, Ghent University, Krijgslaan 281-S3, B-9000 Ghent, Belgium</i> ³ <i>IMEC, IMOMECE associated Laboratory, Wetenschapspark 1, B-3590 Diepenbeek, Belgium</i></p>

P11-5V	Screening of organic semiconductors library for photovoltaic applications by density functional theory M. Ottonelli, M. Alloisio <i>Università degli Studi di Genova – Dipartimento di Chimica e Chimica Industriale via Dodecaneso 31, 16146, Genova, Italia</i>
	Graphene and Related Materials POSTER AREA II (13:00-14:00, 16:00-16:30) Poster Display: 5 - 6 July Poster Display & Presentations: Tuesday 7 - 8 July
P5-1L	Novel TiO ₂ decorated graphene electrodes for lithium ion batteries M. Sidoli ¹ , G. Magnani ¹ , L. Fornasini ¹ , S. Scaravonati ¹ , A. Morengi ¹ , G. Bertoni ² , M. Riccò ¹ , D. Pontiroli ¹ ¹ - Dipartimento di Scienze Matematiche, Fisiche e Informatiche, Università degli studi di Parma, Parma, Italy ² - Istituto Nanoscienze CNR NANO, Modena, Italy
P5-2L	Valorization of organic waste for energy storage applications G. Magnani ¹ , S. Scaravonati ¹ , A. Morengi ¹ , M. Sidoli ¹ , C. Milanese ² , A. Girella ² , M. Riccò ¹ , D. Pontiroli ¹ ¹ - Dipartimento di Scienze Matematiche, Fisiche e Informatiche, Università degli studi di Parma, Parco Area delle Scienze Parma PR, Italy ² - Pavia Hydrogen Lab, C.S.G.I & Dipartimento di Chimica, Sezione di Chimica Fisica, Università degli Studi di Pavia, Viale Taramelli 16, 27100, Pavia, Italy
P5-3L	Two-Dimensional Molybdenum Diselenide Tuned by Bimetal Co/Ni Nanoparticles for Oxygen Evolution Reaction A. Dymerska ¹ , W. Kukułka ¹ , K. Wleniska ¹ , and E. Mijowska ¹ ¹ Faculty of Chemical Technology and Engineering, (Department of Nanomaterials Physicochemistry, West Pomeranian University of Technology in Szczecin) Szczecin, Poland
P5-1V	Ultrathin Polydopamine Films with Phospholipid Nanodiscs Containing a Glycophorin A Domain T. Marchesi, D'Alvise ¹ , K. Wunderlich ¹ , T. Weil ^{1,2} ¹ Synthesis of Macromolecules (Max Planck institute for polymer research) Mainz, Germany ² Institute of Organic Chemistry III/Macromolecular Chemistry (Ulm University) Ulm, Germany
P5-2V	Characterization of Diamond-like carbon films produced by electron- beam physical vapour deposition S. Rabadzhyska, G. Kotlarski, S.Valkov, M.Ormanova, P.Petrov <i>Institute of Electronics „Akad. E. Djakov“, Bulgarian Academy of Sciences, Bulgaria</i>
P5-3V	Electrochemical doping of two dimensional transition metal dichalcogenides K. Filintoglou ^{1,4} , A. Michail ^{2,3} , I. Samaras ¹ , I. Parthenios ³ , and K. Papagelis ^{1,3} ¹ School of Physics Department of Solid State Physics, Aristotle University of Thessaloniki, Greece ² Department of Physics, University of Patras, Greece ³ FORTH/ICE-HT, Institute of Chemical Engineering Sciences, Greece ⁴ HENANOTECH, Greece
	Biosensors & Bioelectronics (common with NN21 W4) POSTER AREA II (13:00-14:00, 16:00-16:30) Poster Display: 5 - 6 July Poster Display & Presentations: Tuesday 7 - 8 July
P4-1L	Portable Plasmonic Nanochip for Fast Cardiac Troponin Biomarker Detection Muresan I. ¹ , Campu A. ¹ , Lazar D. ^{2,3} , Cainap S. ^{2,4} , Lazar F. ⁵ , Astilean S. ¹ , Maniu D. ¹ , Focsan M. ¹ ¹ Babes-Bolyai University, Romania, ² Emergency Cty Hosp Children, Dept Pediat Cardiol, Romania, ³ Iuliu Hatieganu Univ Med & Pharm, Romania, ⁴ Iuliu Hatieganu Univ Med & Pharm, Romania, ⁵ Nicolae Stancioiu Heart Institute, Romania
P4-2L	Novel Highly Stable Conductive Polymer Composite PEDOT: DBSA for Bioelectronic Applications Tumová Š. ^{*1} , Malečková R. ¹ , Kubáč L. ² , Akerman J. ² , Enev V. ¹ , Kalina L. ¹ , Šafaříková E. ^{3, 4} , Víteček J. ³ , Vala M. ¹ , Weiter M. ¹ ¹ Faculty of Chemistry, Brno University of Technology, Purkyňova Brno, Czech Republic, ² Centre for Organic Chemistry, Rybitví, Czech Republic ³ Institute of Biophysics of the Czech Academy of Sciences, Brno, Czech Republic, ⁴ Department of Experimental Biology, Faculty of Science, Masaryk University, Czech Republic
P4-3L	Effects influencing the transconductance of OECTs A. Marková ¹ , S. Střiteský ² , M. Weiter ¹ , M. Vala ¹ ¹ Faculty of chemistry, Brno University of Technology, CZ, ² IQS nano s.r.o., CZ
P4-4L	IL-6 EGOT-based biosensor: A comparison between OECT and EGOFET P. Manco ¹ , M. Berto ¹ , F. Biscarini ^{1, 2} , C.A. Bortolotti ¹ ¹ University of Modena and Reggio Emilia, Italy, ² Center for Translational Neurophysiology of Speech and Communication (CTNSC), Istituto Italiano di Tecnologia, Ferrara, Italy
P4-5L	Characterization and Optimization of Novel Polymer Composite PEDOT: DBSA for Bioelectronic Applications Malečková R. ^{*1} , Tumová Š. ¹ , Kubáč L. ² , Akerman J. ² , Enev V. ¹ , Kalina L. ¹ , Šafaříková E. ^{3, 4} , Víteček J. ³ , Vala M. ¹ , Weiter M. ¹

	<p>¹ Faculty of Chemistry, Brno University of Technology, Czech Republic ² Centre for Organic Chemistry, Czech Republic ³ Institute of Biophysics of the Czech Academy of Sciences, Czech Republic ⁴ Department of Experimental Biology, Faculty of Science, Masaryk University, Czech Republic</p>
P4-6L	<p>Label-free detection of biomarkers of multiple sclerosis with EGOT-based biosensors K. Solodka¹, M. Berto¹, F. Biscarini^{1,2}, C.A. Bortolotti¹, M. Pinti¹ ¹Department of Life Sciences, University of Modena and Reggio Emilia, Modena, Italy ²Center for Translational Neurophysiology of Speech and Communication (CTNSC), Istituto Italiano di Tecnologia, Ferrara, Italy</p>
P4-7L	<p>High throughput platform for identification and characterization of electrogenic bacteria Jiri Ehlich¹, Lukasz Szydlowski² ¹ Faculty of chemistry, Brno University of Technology, Czech Republic ² Malopolska Centre of Biotechnology, Jagiellonian University Krakow, Poland</p>
P4-8L	<p>Rapid determination of COVID-19 viral loads with the intrinsic properties of carbon/graphene electrochemical systems combined with PBASE or EDC/NHS linker chemistry D.E. Georgiadis¹, A. Orfanos², K. Tsimenidis², S. Dermenoudis¹, A. Laskarakis¹, S. Logothetidis¹ 1. Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Thessaloniki, Greece 2. BL NanoBioMed, Thessaloniki, Greece</p>
P4-1V	<p>Meta-chemical Surface for Glucose Sensing Application Based on Glucose Oxidase Using Dip-Pen Nanolithography D. Saban¹, C.J Dobos¹, D. Shamir², M. Zohar³, A. Burg¹ ¹ Department of Chemical Engineering, Shammon College of Engineering, Beer-Sheva, Israel ² Nuclear Research Center, Beer-Sheva, Israel ³ Department of Electrical and Electronics Engineering, Shammon College of Engineering, Beer-Sheva, Israel</p>
P4-2V	<p>Favorable impact of EDTA-derived N in Me-N-C (Me= Fe, Co) electrocatalysts for dopamine electrochemical detection G. Balkourani¹, K. Molochas¹, A. Brouzgou^{1,2}, P. Tsiakaras^{1,3,4} ¹ Laboratory of Alternative Energy Conversion Systems, Department of Mechanical Engineering, School of Engineering, University of Thessaly, Greece ² Department of Energy Systems, Faculty of Technology, University of Thessaly, Greece ³ Laboratory of Materials and Devices for Clean Energy, Department of Technology of Electrochemical Processes, Ural Federal University, Russian Federation ⁴ Laboratory of Electrochemical Devices based on Solid Oxide Proton Electrolytes, Institute of High Temperature Electrochemistry (RAS), Russian Federation</p>
P4-3V	<p>Organic field-effect transistor with a plasmonic fiber optic gate for simultaneous monitoring of biomolecular charge and mass surface density R. Hasler¹, S. Fossati¹, C. Reiner-Rozman¹, P. Aspermaier¹, S. Lee², M. Ibáñez², J. Dostalek^{1,3}, J. Binteringer^{1,4}, W. Knoll¹ ¹AIT Austrian Institute of Technology GmbH, Austria, ²Institute of Science and Technology Austria (IST Austria), Austria, ³FZU-Institute of Physics, Czech Academy of Sciences</p>
P4-4V	<p>Sustainable packaging solutions on the basis of hybrid bioORMOCER® coatings K. Emmert, F. Somorowsky, S. Amberg-Schwab, P. Wenderoth Fraunhofer Institute for Silicate Research, ISC (Chemical Coating Technology), Germany</p>
	<p>I3D (common with NN21) POSTER AREA II (13:00-14:00, 16:00-16:30) Poster Display: 5 - 6 July Poster Display & Presentations: Tuesday 7 - 8 July</p>
PI3D-1V	<p>Development of 3D printing filaments for dosimetry phantom applications in radiotherapy A. Jreije¹, D. Adliene² ^{1,2} Physics Department, Kaunas University of Technology, Studentų Str. 50, Kaunas, Lithuania</p>
PI3D-2V	<p>3D Bioprinting and in vitro Evaluation of Hydroxyapatite / Locust Bean Gum/Alginate Composite Bioinks for Bone Tissue Engineering Sinemli R.¹, Karacaoglu B.¹, Morcimen Z. G.¹, Sendemir A.^{1,2*} ¹ Department of Bioengineering, Ege University, Izmir, Turkey ² Department of Biomedical Technologies, Ege University, Izmir, Turkey</p>