Saturday 5 July 2025

	School 1 Nanosciences & Nanotechnologies, School 2 Organic Electronics, School 3 Nanomedicine (Crystal Hall)	
09:00-11:00	**Words of Welcome & Opening Ceremony** **S. Logothetidis** *Nanotechnology Lab LTFN, AUTh, COPE-Nano Center of Excellence, Greece*	
	Nanotechnology and Applications and short discussion with the participants **S. Logothetidis** *Nanotechnology Lab LTFN, AUTh, COPE-Nano Center of Excellence, Greece*	
11:00-11:30	**Coffee Break**	
	School 1 Nanosciences & Nanotechnologies (Crystal Hall)	School 2 Organic Electronics & School 3 Nanomedicine (Timber Hall 1)
11:30-12:30 12:30-13:30	**Vapor-deposited inorganic thin films** **K. Sarakinos** *University of Helsinki, Finland*	**Introduction to Organic Bioelectronics** **D. Koutsouras** *University of Bath, UK*
13:30-15:00	**Lunch Break**	
	School 1 Nanosciences & Nanotechnologies, School 2 Organic Electronics, DigiPass (Crystal Hall)	School 3 Nanomedicine (Timber Hall 1)
15:00-16:00	**Risk and safety of nanomaterials—Adapting digital passports to nanomaterial challenges** **S. Saliakas** *Innovation in Research and Engineering Solutions (IRES), Belgium*	**Advancing Tissue Engineering with Multifunctional Mesoporous Silica Nanoparticles** **E. Kontonasaki** *Aristotle University of Thessaloniki, Greece*
16:00-17:00	**Engineering Digital Product Passports: From Policy to Prototype** **H. Ibrahim** *LIST, Luxembourg*	**From nano-to submicron scale: different modifications of sol-gel synthesis of mesoporous bioglasses (MBGs) and their impact on their structure, biological properties and applications** **A. Beketova** *Riga Technical University, Latvia*
17:00-18:00	**Semantic technology for the digital product passport for advanced materials** **M. T. Horsch** *Norwegian University of Life Sciences, Norway*	
18:00-18:30	**Coffee Break**	
17:30-19:30	**POSTER SESSION**	

Sunday 6 July 2025

	School 1 Nanosciences & Nanotechnologies / School 2 Organic Electronics / School 3 Nanomedicine (Crystal Hall)		
09:00-10:00 10:00-11:00	**Nanomaterial characterisation as a tool for SSbD** **E. Valsami-Jones** *University of Birmingham, UK*		
11:00-11:30	**Coffee Break**		
11:30-13:30	School 1 Nanosciences & Nanotechnologies **(Crystal Hall)**	School 2 Organic Electronics **(Timber Hall 1)**	School 3 Nanomedicine **(Timber Hall 2)**
11:30-12:30	**Surface chemical analysis by electron spectroscopy techniques: XPS/AES, SAM/Topographic XPS** **N. Pliatsikas** *Physics Department, AUTh, Greece*	**Solar Energy from Plastic Foils** **A. Colsmann** *Karlsruhe Institute of Technology (KIT), Germany*	**Hybrid interfaces between nanosensors and living cells** **F. De Angelis** *Italian Institute of Technology, Italy*
		School 2 Organic Electronics DigiPass **(Timber Hall 1)**	
12:30-13:30		**Intelligent Nanomanufacturing of Organic Electronics and In-Line Metrology for Quality Control** **A. Laskarakis** *Nanotechnology Lab LTFN, AUTh, COPE-Nano CoE, Greece*	
13:30-15:00	**Lunch Break**		
15:00-17:00	School 1 Nanosciences & Nanotechnologies **(Crystal Hall)**	School 2 Organic Electronics / School 3 Nanomedicine **(Timber Hall 1)**	
15:00-16:00 16:00-17:00	**Transmission Electron Microscopy: Generalities, Techniques and Applications** **R. Arenal** *University of Zaragoza, Spain*	**Organic Memristors for Mimicking Neuronal Synapses** **J. Pfleger** *Czech Academy of Sciences, Czech Republic*	
17:00-17:30	**Coffee Break**		
17:30-19:30	**POSTER SESSION**		

Saturday 12 July 2025

	School 1 Nanosciences & Nanotechnologies / School 2 Organic Electronics (Crystal Hall)		School 3 Nanomedicine (Timber Hall 2)
9:00-10:00	**Plasmonic Thin films growth and optical characterisation** **S. Kassavetis** *Nanotechnology Lab LTFN, AUTh, COPE-Nano CoE, Greece*		**Navigating the challenges of developing implantable neurotechnology** **A. Guemes** *University of Cambridge, UK*
	School 1 Nanosciences & Nanotechnologies (Crystal Hall)	School 2 Organic Electronics (Timber Hall 1)	School 3 Nanomedicine (Timber Hall 2)
10:00-11:00	**Nanomaterials for Gas Sensing Applications** **E. Gagaoudakis** *FORTH/IESL, Greece*	**X-Ray Technologies for Characterization of organic semiconductors** **C. Gravalidis** *Nanotechnology Lab LTFN, AUTh, COPE-Nano CoE, Greece*	**Introduction to Bioreactors for Tissue Engineering** **Y. Missirlis** *Lab of Biomechanics & Biomedical Engineering, University of Patras, Greece*
11:00-11:30	**Coffee Break**		
	School 1 Nanosciences & Nanotechnologies / School 3 Nanomedicine (Crystal Hall)	School 2 Organic Electronics (Timber Hall 1)	
11:30-13:30	**AFM: principles and applications** **V. Koutsos** *University of Edinburgh, UK*	**OLEDs Technology and Applications** **D. Tselekidou** *Nanotechnology Lab LTFN, AUTh, COPE-Nano CoE, Greece*	
13:30-15:00	**Lunch Break**		
	School 1 Nanosciences & Nanotechnologies / School 2 Organic Electronics / School 3 Nanomedicine (Crystal Hall)		
15:00-17:00	**Global Health Impacts of Nanotechnology Law for Scientists Solutions that Avoid Liability** **I. Feitshans & V. Papadouli** *European Scientific Institute, France*		
17:00-17:30	**ISSON25 Closing Ceremony & POSTER Awards**		

School 1 Nanosciences & Nanotechnologies

P1	**Metal Oxide Colloidals Synthesis Using Laser Ablation in Liquids for application in Enhanced OLED Devices** **K. Kyrtopoulou[1]**, N. Pliatsikas[1], E. Karkadaki[1], S. Panos[1], S. Kassavetis[1], M. Gioti[2], P. Patsalas[1] *1. Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece* *2. Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece*
P2	**Selective electrochemical sensing of dopamine via β-cyclodextrin-**functionalized selenium quantum dots **J Kim[1]**, R Sangubotla[1], K. Yun[2], C.-H. Jang[3] *[1] Dept. of Chemical and Biological Eng.,* *[2] Bionano Technology, 3 Chemistry, Gachon University*
P3	**Solvothermal Synthesis of Coated Cu-doped ZnO Nanoparticles: Optical, photocatalytic and antioxidant properties** **G. Amiridou[1]**, E. Chatzatoglou[1], K. Giannousi[1], A. Koutsioukis[2], I.M. Oikonomou[2], V. Nicolosi[2], C. Dendrinou-Samara1 *[1]Laboratory of Inorganic Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, 54124, Greece* *[2]School of Chemistry, CRANN & AMBER centers, Trinity College Dublin, Dublin 2, Ireland*
P4	**Study on long term stability of electric and thermoelectric properties and reduced oxidation for Sb2Te3 nanoparticle/PEO hybrid thermoelectric material** **Bitmets O.***, Pudzs K., Hamawandi B., Grzibovskis R. *Institute of Solid State Physics, University of Latvia, Ķengaraga street 8, Rīga, LV-1063, Latvia*
P5	**Surface Modification of Silver Nanostructures with Sodium 2-Mercaptoethanesulfonate** **Lech A.*[1,2]**, Celichowski G.[2] *[1]University of Lodz, Doctoral School of Exact and Natural Sciences, Matejki 21/23, 90-237 Lodz,* *[2]University of Lodz, Faculty of Chemistry, Department of Materials Technology and Chemistry, ul. Pomorska 163, 90-236 Lodz*
P6	**Engineering Stable Multilayer Interfaces for Radiative Cooling** **M. Ferrer A.[1]**, J. Drevillon[2], D. Pilloud[1], F. Capon[1] *[1]Team of Thin Films for Energy and Applications, University of Lorraine, CNRS, Institute Jean Lamour, France.* *[2]Institute Pprime, CNRS, University of Poitiers ISAE-ENSMA, F-86962 Futuroscope Chasseneuil, Poitiers, France.*
P7	**N-integration in Ni-Fe-Cr-Ru-Mo High-Entropy Electrocatalytic Materials** Eslami M.[1,2], **Zorzi S.*[1]**, Bordin M.[1], De Gregorio G. [1], Gottardi G. [1], Testi M. [1], Crema L. [1] *[1] Centre for Sustainable Energy (SE), Bruno Kessler Foundation (FBK), Trento 38123, Italy* *[2] Applied Research Institute, The Grainger Collage of Engineering, University of Illinois Urbana-Champaign, Champaign 61820, Illinois, US*
P8	**Plasma-based deposition techniques for green and versatile synthesis of advanced materials for hydrogen technologies** **Bordin M.*[1]**, Zorzi S.[1], Gottardi G.[1], Bartali R.[1], Testi M.[1] *[1] Center for Sustainable Energy, Fondazione Bruno Kessler, Via Sommarive 18, 38123, Trento, TN, Italy*
P9	**Synthesis of Colloidal Metal Oxide Nanoparticles via Pulsed Laser Ablation** **E. Karkadaki**, K. Kyrtopoulou, S. Panos, N. Pliatsikas, S. Kassavetis, P. Patsalas. *Department of Physics, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece*

P10 **Titanium Nitride Nanostructures by pulsed laser processing for Plasmonic Applications**
I. Paschalis[1], S. Kassavetis[2], N. Pliatsikas[1], S. Panos[1], Ch. Stavraki[2], P. Patsalas[1]
[1]. *Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece*
[2]. *Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece*

School 2 Organic Electronics

P11 **Visible light communication using thermally-activated delayed fluorescent OLEDs**
King L.G.*[1], Majlesein B.[2], Osahon I.N.O[2], Yoshida K.[1], Haas H.[2], Samuel I.D.W.[1]
[1]Organic Semiconductor Centre, SUPA, School of Physics and Astronomy, University of St. Andrews, United Kingdom
[2]LiFi Research and Development Centre, Electrical Engineering Division, University of Cambridge, United Kingdom

P12 **Biological transistor (bioFET) for the specific and label-free sensing of CRP in unprocessed blood**
S. Babbar[1], A. Eisenberg-Lerner[2], Z. Rotfogel[2,3], E. Pikhay[4], I. Shehter[4], A. Elkayam[4], M.Y. Bashouti[5], B. Akabayov[6], I. Ron[1], G. Hazan[7,8], Y. Roizin[4], G. Shalev[1,5]
[1] School of Electrical Engineering, Ben-Gurion University of the Negev, Israel.
[2] Ophthalmology Research Laboratory, Kaplan Medical Center, Rehovot, Israel.
[3] Faculty of Medicine, Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel.
[4] Tower Semiconductor, PO Box 619, Migdal Haemek, Israel
[5] The Ilse-Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 8410501, Israel.
[6] Department of Chemistry and Data Science Research Center, Ben-Gurion University of the Negev, 8410501, Beer-Sheva, Israel.
[7] School of Medicine, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.
[8] Pediatric Department D, Soroka University, Medical Center, Beer-Sheva, Israel.

P13 **Wearable System for Gastric Motility Monitoring using High-Resolution Electrogastrography**
C. Slaughter[1], L. Gatecliff[1], X. Tao[1], R.R.M. Serrano[1], A. Dominguez-Alfaro[1], G. Malliaras[1]
Department of Engineering, University of Cambridge

P14 **W-shaped luminophores based on isophtaloylbisdibenzothiophene (ISBDBT) for OLED application**
A. Kimpel, M. Stanitska, J. Vidas Gražulevičius
Department of Polymer Chemistry and Technology, Faculty of Chemistry, Kaunas University of Technology University, Lithuania

P15 **Development of down-converting white light-emitting diodes based on phenothiazine and 3,5-dicyanopyridine derivatives with single-molecular white emissions**
Volyniuk D.*[1], Melnykov S.[2], Arsenyan P.[3], Volyniuk L.[1], Vigante B.[3], Karaush-Karmazin N.M.[4], Minaev B.F.[4], Lazauskas A.[1], Belyakov S.[3], Bezvikonnyi O.[1], Stakhira P.[2], Grazulevicius J.V.[1]
[1]*Department of Polymer Chemistry and Technology, Kaunas University of Technology, K. Barsausko str. 59, Kaunas 51423, Lithuania*
[2]*Department of Electronic Engineering, Lviv Polytechnic National University, Stepan Bandera st. 12, 79013, Lviv, Ukraine*
[3]*Latvian Institute of Organic Synthesis, Aizkraukles 21, LV-1006, Riga*
[4]*Department of Chemistry and Nanomaterials Science, Bohdan Khmelnytsky National University, 18031, Cherkasy, Ukraine*

P16 **Development of triazine and carbazole derivatives featuring bipolar charge-transporting properties and thermally activated delayed fluorescence**
Volyniuk L.*[1], Stanitska M.[1], Bucinskas A.[1], Ghasemi M.[1], Dabuliene A.[1], Woon K.L.[1], Volyniuk D.[1], Grazulevicius J.V.[1]
[1]*Department of Polymer Chemistry and Technology, Kaunas University of Technology, K. Barsausko str. 59, Kaunas 51423, Lithuania*
[2]*Low Dimensional Material Research Centre, Department of Physics, University Malaya, Kuala Lumpur, Malaysia.*

P17	**Inline photoluminescence imaging of organic PV foils avoiding degradation during the testing** **T. Brigancz[1]***, R. Fekete[1], Z. Kiss[1] and F. Korsós[1], A. Zachariadis[2], C. Kapnopoulos[2], 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, Department of Physics, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece [3] Organic Electronic Technologies P.C. (OET), 20th KM Thessaloniki—Tagarades, GR-57001 Thermi, Greece
P18	**Impact of Modified Hole Transport Layer Functionalization on the Performance of Printed Perovskite Solar Cells** **A.Kostopoulou[1,2]**, C.Stavraki[1,2], C.Kapnopoulos[1,2], E. Paraschoudi[1,2], P.Rampota[1,2], K.Papadopoulos[1,2], S.Kassavetis[1,2], E.Mekeridis[3], S.Logothetidis[1,2,3], A.Laskarakis[1,2] *[1]Lab for Thin Films, Nanobiomaterials, Nanosystems & Nanometrology (LTFN),Physics Department, Aristotle University of Thessaloniki, Greece* *[2]Centre of Excellence for Organic, Printed Electronics & Nanotechnologies (COPE-Nano), 57001 Thermi, Thessaloniki, Greece* *[3]Organic Electronic Technologies (OET), 20th KM Thessaloniki - Tagarades, 57001 Thermi, Greece*
P19	**Transient Photoluminescence: from organic to solar cells** **L. Illés[1,2]**, F. Steinbach[1], T. Brigancz[2], F. Korsós[2], A. Zachariadis[3], C. Kapnopoulos[3], E. Mekeridis[4], A. Laskarakis[3], S. Logothetidis [3,4], Z. T. Kiss[2], Á. Solti[5], S. Lenk[1] *[1]Department of Atomic Physics, Institute of Physics, Budapest University of Technology and Economics, Műegyetem rakpart 3., H-1111 Budapest, Hungary* *[2]Semilab Co. Ltd, Prielle Kornélia u. 4/A. H-1117 Budapest, Hungary* *[3]Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece* *[4]Organic Electronic Technologies P.C. (OET), 20th KM Thessaloniki—Tagarades, GR-57001 Thermi, Greece* *[5]Department of Plant Physiology and Molecular Plant Biology, Eötvös Loránd University, Pázmány Péter, Hungary*
P20	**Machine Learning for the Efficiency Optimization of Flexible Printed Organic Photovoltaics** **G. Krokidas**, S. Kassavetis, A. Laskarakis, Ch. Kapnopoulos, A. Paliagkas, S. Logothetidis *Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Thessaloniki GR-54124, Greece*
P21	**Modification of slot-die coated transparent electrodes for integration into organic photovoltaics (OPVs)** **A. Papadopoulos**, C. Kapnopoulos, E. Doudis, E. Paraschoudi, P. Rampota, C. Stavraki, A. Paliagkas, S. Kassavetis, S. Logothetidis, A. Laskarakis *Nanotechnology Lab LTFN, Department of Physics, 54124, Aristotle University of Thessaloniki, Greece*
P22	**Enhancing Reliability and Mechanical Robustness of R2R-Printed Flexible Organic Photovoltaics** **E. Doudis[1]** , Th. Kalampaliki[1], S. Kassavetis[1], S. Zygridou[2], E. Mekeridis[2], A. Laskarakis[1], S. Logothetidis[1,2] *[1] Department of Physics, Aristotle University of Thessaloniki, Greece* *[2] Organic Electronic Technologies (OET), 20th KM Thessaloniki - Tagarades, 57001 Thermi, Greece*
P23	**Correlation between Energy-Level Alignment and Interfacial Properties with the OLED Performance** **D. Kanatsiopoulos[1,2]**, K. Papadopoulos[1,2], D. Tselekidou[1,2], S. Kassavetis[1,2], S. Logothetidis[1,2,3], M. Gioti[1,2] *[1] Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki,GR-54124 Thessaloniki, Greece* *[2] Center of Excellence for Organic, Printed Electronics & Nanotechnologies (COPE-Nano), Thessaloniki, Greece* *[3] Organic Electronic Technologies P.C. (OET), 20 KM Thessaloniki-Tagarades, Greece*

School 3 Nanomedicine

P24	**Conceptualization of a portable device for non-invasive creatinine detection** **Francalanci B.*[1]**, Rovini E.[1], Cavallo F.[1] *Department of Industrial Engineering, University of Florence, via di Santa Marta 3, 50139, Florence, Italy*

P25

Tannic acid as a natural compound in the synthesis of silver nanoparticles

Bednarczyk K.*, Tomaszewska E., Celichowski G., Grobelny J., Ranoszek-Soliwoda K.

Department of Materials Technology and Chemistry, Faculty of Chemistry, University of Lodz, Poland

P26

Addressing the challenge of solution gating in biosensors based on field-effect transistors

V. Garika[1#], S. Babbar[1], S. Samanta[1], S. Harilal[2], A. Eisenberg-Lerner[3], Z. Rotfogel[3,4], E. Pikhay[5], I. Shehter[5], A. Elkayam[5], M. Y. Bashouti[2,6], B. Akabayov[7], I. Ron[1], G. Hazan[8,9], Y. Roizin[5], G. Shalev[1,6]*

[1] *School of Electrical Engineering, Ben-Gurion University of the Negev, Israel.*

[2] *Department of Solar Energy and Environmental Physics, Swiss Institute for Dryland Environmental and Energy Research, J. Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Midreshet Ben-Gurion 8499000, Israel.*

[3] *Ophthalmology Research Laboratory, Kaplan Medical Center, Rehovot, Israel.*

[4] *Faculty of Medicine, Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel.*

[5] *Tower Semiconductor, PO Box 619, Migdal Haemek, Israel*

[6] *The Ilse-Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 8410501, Israel.*

[7] *Department of Chemistry and Data Science Research Center, Ben-Gurion University of the Negev, 8410501, Beer-Sheva, Israel.*

[8] *School of Medicine, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.*

[9] *Pediatric Department D, Soroka University, Medical Center, Beer-Sheva, Israel.*

P27

Novel gating mechanism employed on nano bio-FET towards real-time, point-of-care diagnostics in human whole blood

V. Garika[1#], S. Bhattarai[8], S. Harilal[2], A. Eisenberg-Lerner[3], Z. Rotfogel[3,4], E. Pikhay[5], I. Shehter[5], A. Elkayam[5], M. Y. Bashouti[2,6], B. Akabayov[7], I. Ron[1], Y. Roizin[5], V. Bamm[8], M. Wills[8], G. Shalev[1,6]*

[1] School of Electrical Engineering, Ben-Gurion University of the Negev, Israel.

[2] Department of Solar Energy and Environmental Physics, Swiss Institute for Dryland Environmental and Energy Research, J. Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Midreshet Ben-Gurion 8499000, Israel.

[3] Ophthalmology Research Laboratory, Kaplan Medical Center, Rehovot, Israel.

[4] Faculty of Medicine, Hadassah Medical School, The Hebrew University of Jerusalem, Jerusalem, Israel.

[5] Tower Semiconductor, PO Box 619, Migdal Haemek, Israel

[6] The Ilse-Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 8410501, Israel.

[7] Department of Chemistry and Data Science Research Center, Ben-Gurion University of the Negev, 8410501, Beer-Sheva, Israel.

[8] Department of Molecular and Cellular Biology, University of Guelph, 50 Stone Road East, Guelph, Ontario, Canada.

P28

Mixed and core-shell separated conjugated polymer nanoparticles for theranostic applications

A. Uzunoff[1], M. Zhao[1], Y. Wang[1], D. Panova[1], Billy Lo[1], Simon Fairclough[2], M. Green[1], A. Rakovich[1]

[1]*King's College London, Department of Physics, Strand, London WC2R 2LS, United Kingdom*

[2]*University of Cambridge, Cambridge Centre for Gallium Nitride, 27 Charles Babbage Road, Cambridge CB3 0FS, United Kingdom*

P29	**Effect of Solution Gating in the Detection of Organophosphate via Meta-Nano-Channel Field Effect Transistor** **P. Verma[1*]**, Y. Ben-Shahar[5*], S. Bhattarai[2], S. Harilal[3], G. Feldheim[5], A. Pavzner[5], I. Columbus[6], E. Pikhay[4], I. Shechter[4], A. Elkayam[4], M. Y. Bashouti[3,6], B. Akabayov[2], A. Weissberg[7], I. Ron[1,5], Y. Roizin[4], G. Shalev[1,8**] *[1] School of Electrical Engineering, Ben-Gurion University of the Negev, Israel* *[2] Department of Chemistry and Data Science Research Center, Ben-Gurion University of the Negev, 8410501, Beer-Sheva, Israel* *[3] Department of Solar Energy and Environmental Physics, Swiss Institute for Dryland Environmental and Energy Research, J. Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Midreshet Ben-Gurion 8499000, Israel* *[4] Tower Semiconductor, PO Box 619, Migdal Haemek, Israel* *[5] Department of Physical Chemistry, Israel Institute for Biological Research, P.O. Box 19, Ness-Ziona 74100, Israel* *[6] Department of Analytical Chemistry, Israel Institute for Biological Research, P.O. Box 19, Ness-Ziona 741000, Israel* *[6] Department of Organic Chemistry, Israel Institute for Biological Research, P.O. Box 19, Ness-Ziona 741000, Israel* *[8] The Ilse-Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 8410501, Israel*
P30	**From hybrid peptides to structured bioorganic-inorganic materials** **A. Qassem*[1, 2]**, C. Echalier [1], L. Valot [1], A. Bittner[2], A. Mehdi[1], G. Subra[1] *[1] IBMM, University of Montpellier, CNRS, ENSCM, Montpellier, France* *[2] CIC nanoGUNE, The University of Basque Country UPV/EHU, Donostia San Sebastian, Spain*
P31	**Harnessing Hybrid ZnO-based nanostructures for biological Applications** **A. Mikras[1]**, P. Bekeridou[1], K. Giannousi[1], G. Vourlias[2], N. Florini[2], P. Komninou[2], C. Dendrinou-Samara[1] *[1]Laboratory of Inorganic Chemistry, Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, 54124, Greece* *[2] Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, 54124, Greece*
P32	**Ultra-small carbon nanodots based on ketoglutaric acid synthesized by the hydrothermal method** **N. L. Marangoci[1]**, I.-A. Turin-Moleavin[1], C. Uritu[2], F. Doroftei[1], A. Coroaba[1], F. Adrian[1] *[1]Centre of Advanced Research in Bionanoconjugates and Biopolymers Department, "Petru Poni" Institute of Macromolecular Chemistry, Romania* *[2]Advanced Center for Research and Development in Experimental Medicine "Prof. Ostin C. Mungiu", "Grigore T. Popa" University of Medicine and Pharmacy, Romania*
P33	**Sustainable Luminescent Carbon Dots from Green Tea: A Green Chemistry Approach** **Menon Sikha Sanjay*[1]** Opoku Henry[1], Edman Ludvig[1] Wang Jia[1] *Department of Physics, Umeå University, SE-90187 Umeå, Sweden*
P34	**Synthesis and characterization of chitosan coated mesoporous silica nanoparticles for chlorhexidine delivery** **G. Kourti[1],** G. Pouroutzidou[2], G. Vourlias[1], E. Kontonasaki[4] *[1,] Department of Physics, Aristotle University of Thessaloniki (AUTh), 54124 Thessaloniki, Greece* *[2] Department of Dentistry, Aristotle University of Thessaloniki (AUTh), 54124 Thessaloniki, Greece*

P35	**Synthesis of hybrid hydrogels GelMA/PEDOT:PSS enhanced with magnetic core-shell nanoparticles of Fe_3O_4/mSi/Ca, for tissue regeneration** **D. Kordonidou[1]**, I. Tsamesidis[2], D. Gilliopoulos[3], G. Vourlias[1,4], M. Angelakeris[5,6], X. Chatzistavrou[7], E. Kontonasaki[2], P. Patsalas[1] *[1]Department of Physics, Aristotle University of Thessaloniki, Greece* *[2]Division of Prosthodontics, Department of Dentistry, School of Health Sciences, Aristotle University of Thessaloniki, Greece* *[3]Laboratory of Chemical and Environmental Technology, Department of Chemistry, Aristotle University of Thessaloniki, Greece* *[4]Laboratory of Advanced Materials and Devices, Department of Physics, Aristotle University of Thessaloniki, Greece* *[5]Department of Condensed Matter and Materials Physics, AUTh, Greece* *[6]Center for Interdisciplinary Research and Innovation (CIRI-AUTH), Greece* *[7]Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece*
P36	**Synthesis of zinc oxide nanoparticles by laser ablation in water as potential photosensitizer for photodynamic therapy** **M. Trohopoulou**, N. Pliatsikas, E. Pavlidou, G. Vourlias, S. Panos, T. Odutola, S. Kassavetis, P. Patsalas *Department of Physics, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece*
P37	**Design and Fabrication of Flexible, Fully Printed Piezoelectric Sensors for Heart Rate Monitoring** **A. Paliagkas[1,2]**, E. Paraschoudi[1,2], S. Kassavetis[1,2], C. Kapnopoulos[1,2], M. Chatzidis[1,2], C. Stavraki[1,2], A. Laskarakis[1,2], S. Logothetidis[1,2,3] *[1]Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece* *[2]Centre of Excellence for Organic, Printed Electronics & NanoTechnologies (COPE-Nano), 57001 Thermi, Thessaloniki (Greece)* *[3]Organic Electronic Technologies P.C. (OET) 20th KM Thessaloniki - Tagarades, 57001 Thermi Greece - Thessaloniki (Greece)*
P38	**Antimicrobial Testing of Laser-processed Titanium Nitride Thin Films** **M. Keloglou**[1], I. Paschalis[1], S. Kassavetis[1,2,3], N. Pliatsikas[1], S. Panos[1] P. Patsalas1 *[1.] Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece* *[2.] Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki, University Campus, 54124 Thessaloniki, Greece* *[3.] Centre of Excellence for Organic, Printed Electronics & NanoTechnologies (COPE-Nano), 57001 Thermi, Thessaloniki (Greece)*
P39	**Scalable Fabrication and Stability Analysis of Fully Printed Flexible Perovskite Solar Modules** **C. Stavraki[1,2],** S. Kassavetis[1,2], C. Kapnopoulos[1,2], A. Zachariadis[1,2], E. Paraschoudi[1,2], A. Paliagkas[1,2], E. Mekeridis[3], A. Laskarakis[1,2], S. Logothetidis[1,2,3] *[1]Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece,* *[2]Centre of Excellence for Organic, Printed Electronics & Nanotechnologies (COPE-Nano), Greece* *[3]Organic Electronic Technologies P.C. (OET), Thermi, Greece*
P40	**Development and Characterization of Blended Organometallic films for Single-Layer White Phosphorescent OLEDs** ***Apostolidis P.*[*1]**, *Papadopoulos K.[1], Tselekidou D.[1], Kanatsiopoulos D.[1], Gravalidis C.[1], Logothetidis S.[1,2], Gioti M.[1]* *[1]Nanotechnology Lab LTFN, Department of Physics, Aristotle University of Thessaloniki,* *GR-54124, Thessaloniki, Greece* *[2]Organic Electronic Technologies P.C. (OET), 20th KM Thessaloniki - Tagarades, GR-57001, Thermi, Greece*