

PROGRAM

Saturday 3 July 2021

School 1, School 2 & School 3 (Crystal & ISSON 1)			
11:00-13:00	<i>Welcome - S. Logothetidis (Nanotechnology Lab LTFN, AUTH, Greece)</i>		
	S. Logothetidis (Nanotechnology Lab LTFN, AUTH, Greece) <i>Nanotechnology and Applications and short discussion with the participants</i>		
13:00-14:00	<i>Lunch Break</i>		
	School 1 (Crystal & ISSON 1)	School 2 (ISSON 2)	School 3 (ISSON 3)
14:00-15:00	Prof. Elefterios Lidorikis, University of Ioannina, Greece <i>Multiscale and Multiphysics Modelling of nanomaterials and nanodevices</i>	Dr. Sandra Jenatsch, Fluxim AG, Switzerland <i>Improving PV and OLED performance by means of advanced characterization and simulation</i>	MD Dr. Thanos Karamitsos, Aristotle University, Greece <i>Nanomedicine and Applications in Ophthalmology</i>
15:30-16:00		Martin Krebs <i>Printed Batteries</i>	
16:00-16:30	<i>Coffee Break</i>		
	School 1 (Crystal & ISSON 1)	School 2 (ISSON 2)	School 3 (ISSON 3)
16:30-17:30	Dr. George Deligeorgis, FORTH IESL, Greece <i>Processing of 2D materials</i>	Prof. Koen Vandewal, Hasselt University, Belgium <i>Physics of organic opto-electronic devices</i>	Dr. Antonios Asiminas, University of Edinburgh, UK <i>Nanotechnology to the rescue: using nanotechnology tools to understand the brain</i>
17:30-18:30			
18:30-20:00	ISSON21 Poster Area II - Networking		

Sunday 4 July 2021

School 1, School 2 & School 3 (Crystal & ISSON 1)			
11:00-12:00	Prof. Luisa Petti, University of Bozen-Bolzano, Italy		
12:00-13:00	<i>Flexible and printed electronics for sensing applications: from materials to devices, circuits & systems</i>		
13:00-14:00	Lunch Break		
14:00-16:00	School 1 (Crystal & ISSON 1)	School 2 (ISSON 2)	School 3 (ISSON 3)
14:00-15:00	Dr. Raul Arenal, University of Zaragoza, Spain	Prof. Vangelis Harmandaris, The Cyprus Institute, Cyprus	Dr. Evangelos Delivopoulos, University of Reading, UK
15:00-16:00	<i>Studies of Nanomaterials at the Local Scale: Principle and Applications of Electron Energy Loss Spectroscopy (EELS) in a TEM</i>	<i>Computational Modeling of Soft Matter Across Scales: From Atoms to the Design of Materials</i>	<i>Neural Interfacing: from stretchable electronics to conductive hydrogels</i>
16:00-16:30	Coffee Break		
16:30-18:30	School 1 (ISSON 1)	School 2 (ISSON 2)	School 3 (Crystal & ISSON 3)
	Prof. Aristides Zdetsis, University of Patras, Greece	Dr. Argiris Laskarakis, Nanotechnology Lab LTFN, AUTH, Greece	T. Mitsiadis (University of Zurich, Switzerland)
	<i>The molecular versus the crystalline nature of graphene and graphene-like structure: The hidden shells of aromaticity and symmetry</i>	<i>Intelligent Nanomanufacturing of Organic Electronics and In-Line Metrology for Quality Control</i>	<i>Trends in modern dentistry</i>
18:30-20:00			

Saturday 10 July 2021

	School 1 (Crystal & ISSON 1)	School 2 (ISSON 2)	School 3 (ISSON 3)
11:00-12:00	Prof. Kostas Sarakinos, Linköping University, Sweden <i>Thin-film nucleation and growth from the vapor phase</i>	Dr. Konstantinos Fostiropoulos, Helmholtz-Zentrum Berlin, Germany <i>Organic Solar Cells</i>	Y. Missirlis (University of Patras, Greece) <i>Introduction to Bioreactors for Tissue Engineering</i>
12:00-13:00		Dr. Claudio Quarti, University of Mons, Belgium <i>An overview of electronic structure methods for with few applications in spectroscopy</i>	A. Sendemir-Urkmez (Ege University, Turkey) <i>Optimization of cell viability in bioprinting</i>
13:00-14:00	<i>Lunch Break</i>		
	All Schools (Crystal & ISSON 1)		
14:00-16:00	Laura López Mir, Eurecat Technology Centre <i>In Mold Electronics for novel applications</i> Luciano Sappia, Eurecat Technology Centre <i>Printed Sensors and Biosensors</i>		
16:00-16:30	<i>Coffee Break</i>		
	All Schools (Crystal & ISSON 1)		
16:30-17:30	I. Feitchans (Institute for Work and Health University of Lausanne, Switzerland) <i>Global Health Impacts of Nanotechnology Law for Scientists</i> <i>Solutions that Avoid Liability</i>		
17:30-18:30			
18:30-19:00	<i>Closing Remarks</i>		

POSTERS

P1L	<p>Comparative study on the behavior of different polyurethane nanostructures Borcan F.*, Albuiescu R.C., Chirita-Emandi A., Andreescu N. "Victor Babes" University of Medicine and Pharmacy, Romania</p>
P2L	<p>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, România, 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</p>
P3L	<p>Stereochemical recognition of racemic mixtures of [5] and [7]thiaheterohelicene molecules on Ag(111) surface studied by scanning tunneling microscope Krukowski P.1, Hattori T.2, Okada M.2, Piskorski M.*1, Lutsyk I.1, Saito A.2, Osuga H.3, Kuwahara Y.2 1Department of Solid State Physics, Faculty of Physics and Applied Informatics, University of Lodz, Pomorska 149/153, 90-236 Lodz, Poland 2Department of Precision Science and Technology, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita 565-0871, Japan 3Department of Materials Science and Chemistry, Faculty of Systems Engineering, Wakayama University, Sakaedani 930 Wakayama 640-8510, Japan</p>
P4L	<p>Improving ranking for protein-protein docking simulations using Dipole Moment, Rg and pKa G. M. Kefala¹, N. Frangis¹, G. E. Papadopoulos² ¹Aristotle University of Thessaloniki, Greece, ²University of Thessaly, Greece</p>
P5L	<p>Novel paper-based sensing platform using photoluminescent gold nanoclusters for easy, sensitive and selective naked-eye detection of Cu²⁺ A.-M. Hada^{ab}, M. Zetesa^b, M. Focsan^a, T. Nagy-Simon^a, S. Astilean^{ab}, A.-M. Craciun^a ^aInterdisciplinary Research Institute in Bio-Nano-Sciences Romania, ^b Faculty of Physics, Romania</p>
P6L	<p>Two step ionic liquid supported synthesis of BiOBr/Bi₂WO₆ thin film with superior visible light photocatalytic performance Pancielejko A.*1, Łuczak J.1, Lisowski W.2, Zaleska-Medynska A.3, Mazierski P.3 1Department of Chemical Technology, Faculty of Chemistry, Gdansk University of Technology, G. Narutowicza 11/12, 80-233, Gdansk, Poland, anna.pancielejko@pg.edu.pl 2Institute of Physical Chemistry, Polish Academy of Science, Kasprzaka 44/52,01-244, Warsaw, Poland 3Department of Environmental Technology, Faculty of Chemistry, University of Gdansk, Wita Stwosza 63, 80-308, Gdansk, Poland</p>
P7L	<p>The protective properties of graphene oxide coatings functionalized with phosphorus atoms Grajewska K.*1, Lieder M.2 1Department of Process Engineering and Chemical Technology, Faculty of Chemistry, Gdansk University of Technology, 11/12 Gabriela Narutowicza Street, 80-233 Gdansk, Poland</p>
P8L	<p>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 464/118, 612 00 Brno, Czech Republic 2 Centre for Organic Chemistry, Rybitví 296, 533 54 Rybitví, Czech Republic 3 Institute of Biophysics of the Czech Academy of Sciences, Královopolská 135, 612 65 Brno, Czech Republic 4 Department of Experimental Biology, Faculty of Science, Masaryk University, University Campus Bohunice, Kamenice 5, 625 00 Brno, Czech Republic</p>
P9L	<p>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 1 Faculty of Chemistry, Brno University of Technology, Purkyňova 464/118, 612 00 Brno, Czech Republic 2 Centre for Organic Chemistry, Rybitví 296, 533 54 Rybitví, Czech Republic 3 Institute of Biophysics of the Czech Academy of Sciences, Královopolská 135, 612 65 Brno, Czech Republic 4 Department of Experimental Biology, Faculty of Science, Masaryk University, University Campus Bohunice, Kamenice 5, 625 00 Brno, Czech Republic</p>
P10L	<p>Effects influencing the transconductance of OECTs A. Marková1, S. Střiteský2, M. Weiter1, M. Vala1 1Faculty of chemistry, Brno University of Technology, Purkyňova 464/118, 612 00 Brno, CZ 2IQS nano s.r.o., Hlavní 130, Řež, 250 68 Husinec, CZ</p>
P11L	<p>Organic light-emitting diode (OLED) based on graphene electrode modified with rhenium oxide 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 Department of Solid State Physics, Faculty of Physics and Applied Informatics, University of Lodz, Pomorska 149/152, 90-236 Lodz, Poland 2Department of Molecular Physics, Lodz University of Technology, Zeromskiego 116, 90-924 Lodz, Poland 3Institute of Electronic Materials Technology, Wolczynska 133, 01-919 Warsaw, Poland</p>
P12L	<p>Cesium perovskite as scintillator for high-energy radiation detection M. Kratochvíl1, T. Musalek2, M. Kolibal2, M. Weiter1 1 Brno University of Technology, Faculty of chemistry, Purkyňova 118, Brno 612 00, Czech Republic 2 Brno University of Technology, Faculty of Mechanical Engineering, Technická 2896/2, Brno 616 69, Czech Republic</p>
P13L	<p>IL-6 EGOT-based biosensor: A comparison between OECT and EGOFET P. Manco1, M. Berto1, F. Biscarini1,2, C.A. Bortolotti1 1University of Modena and Reggio Emilia, Italy 2Center for Translational Neurophysiology of Speech and Communication (CTNSC), Istituto Italiano di Tecnologia, Ferrara, Italy</p>

P14L	<p>Organic Solar Cells on Paper Substrates Hamed Javanbakht Lomeri*¹, Giuseppina Polino¹, Elena Parmieri², Silvia Orlanducci², Francesca Brunetti¹ ¹CHOSE (Centre for Hybrid and Organic Solar Energy), Department of Electronic Engineering, University of Rome Tor Vergata, Via del Politecnico 1, 00133 Roma ²Department of Chemical Science and Technologies, University of Rome Tor Vergata, Via della Ricerca Scientifica 1, 00133 Rome, Italy</p>
P15L	<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>
P16L	<p>High throughput platform for identification and characterization of electrogenic bacteria. Jiri Ehlich¹, Lukasz Szydowski² ¹Faculty of chemistry, Brno University of Technology, Czech Republic, ²Malopolska Centre of Biotechnology, Jagiellonian University Krakow, Poland</p>
P17L	<p>Two-Dimensional Molybdenum Diselenide Tuned by Bimetal Co/Ni Nanoparticles for Oxygen Evolution Reaction A. Dymerska¹, W. Kukułka¹, K. Wenelska¹, and E. Mijowska¹ ¹ West Pomeranian University of Technology in Szczecin Poland</p>
P18L	<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>
P19L	<p>Design rules for organic and perovskite photovoltaic nano-architectures with tailored optoelectronic performance based on optical simulation A. Laskarakis, E. Prountzou, A. Zachariadis, S. Logothetidis, Nanotechnology Lab LTFN, Aristotle University of Thessaloniki 54124, Thessaloniki, Greece</p>
P20L	<p>Towards the development and clinical validation of physiologically-based pharmacokinetic models for different doxorubicin formulations: Pharmacological correlation and clinical utility George A. Mystridis¹, George Batzias², Ioannis S. Vizirianakis¹ ¹Laboratory of Pharmacology, School of Pharmacy and ²Laboratory of Pharmacology, School of Veterinary Medicine, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece</p>
P21L	<p>The Stem Cell Derived Microparticles From Umbilical Cord Blood Affect The Viability, The Apoptosis And The Clonogenicity Of Hematopoietic Cells Sianidou K.1,2, Deligianni F.1,2, Katana Z.1,3, Papaioannou D.1, Kouvatsi A.2, Kritis A.2 and Sotiropoulos D. 1, Anagnostopoulos A.1, Xagorari A.1 ¹Public Cord Blood Bank, Dept. of Hematology, "G.Papanicolaou" Hospital, Thessaloniki, Greece ²Biology Department, Aristotelian University of Thessaloniki, Thessaloniki, Greece ³Department of Medicine, Aristotelian University of Thessaloniki, Thessaloniki, Greece</p>
P22L	<p>X-ray Fluorescent Nanoparticles for in vivo Bioimaging G. M. Saladino, C. Vogt, Y. Li, K. Shaker, B. Brodin, M. Svenda, H. M. Hertz, M. S. Toprak Department of Applied Physics, KTH Royal Institute of Technology, Sweden</p>
P23L	<p>Resveratrol-therapeutic agent delivered and localized via fluorescent polyelectrolyte microsystems inside living cells Stoia D.1, Popan R.2, Nistor M.2, Borlan R.1, Rugina D.2, Focsan M.1 ¹ Babes-Bolyai University, Romania ² University of Agricultural Sciences and Veterinary Medicine, Romania</p>
P24L	<p>A gold-based nano-formulation of the CRISPR/Cas9 ribonucleoprotein for efficient delivery and genome editing S. Konstantinidou¹, T. Schmidt¹, E. Landi¹, A. De Carli¹, G. Maltinti¹, D. Witt², A. Dziadosz², A. Lindstaedt², M. Lai³, M. Pistello³, V. Cappello⁴, L. Dente¹, C. Gabellini¹, P. Barski², V. Raffa¹ ¹Department of Biology, University of Pisa, Italy ²ProChimia Surfaces, Poland ³Department of Medicine, University of Pisa, Italy ⁴Istituto Italiano di Tecnologia, Italy</p>
P25L	<p>Porous silicon microparticles for immune adjuvant delivery A. Sambugaro¹, E. Chisté¹, M. Donini², M. Scarpa³, S. Dusi², N. Daldosso¹ ¹Department of Computer Science, Fluorescence Laboratory, University of Verona, Ca' Vignal 2, Strada le Grazie 15 - 37134 Verona, Italy ²Department of Medicine, Division of General Pathology, University of Verona, Strada Le Grazie 8 - 37134 Verona, Italy ³Department of Physics, Laboratory of Nanoscience, University of Trento, st. Sommarive 14 - 38123 Povo (TN), Italy</p>
P26L	<p>Design and Fabrication of Microfluidic Mixer for Multiple Orders of Magnitude of Dilution Saygin G.D*^{1,2}, Bortolotti C.A.3, Biscarini F.3,4 ¹Scriba Nanotecnologie s.r.l., Via di Corticella 183/8, I-40128, Bologna, Italy ²Department of Physics, Informatics and Mathematics, Università, Degli Studi di Modena e Reggio Emilia, Via Campi 103, I-41125, Modena, Italy ³Department of Life Sciences, Università, Degli Studi di Modena e Reggio Emilia, Via Campi 103, I-41125, Modena, Italy ⁴Center for Translational Neurophysiology - Istituto Italiano di Tecnologia, Via Fossato di Mortara 17-19, I-44100, Ferrara, Italy</p>
P27L	<p>Use of 2,2'-(p-tert-butylphenyl)-6,6'-bibenzoxazole (BBzx) in deep-blue organic light-emitting diodes (OLEDs) El Housseiny Housseina, Fery-Forgues Suzanneb, Zisis Georgesa and Renaud Cédrica ^aUniversité de Toulouse III Paul Sabatier, LAPLACE (Laboratoire Plasma et Conversion d'Énergie), France ; ^bUniversité de Toulouse III Paul Sabatier, SPCMIB, CNRS UMR 5068, F31062 Toulouse, France</p>

VIRTUAL POSTERS

P1V	<p>Sustainable packaging solutions on the basis of hybrid bioORMOCER[®] coatings K. Emmert¹, F. Somorowsky, S. Amberg-Schwab, P. Wenderoth ¹Fraunhofer Institute for Silicate Research, ISC (Chemical Coating Technology), Germany</p>
P2V	<p>Investigation of humidity-induced self-assembly Phe-Phe in solid-state organic film S. Vasilev¹, D. Vasileva², D. Chezganov³, V. Lebedev⁴, A.L. Kholkin⁵, E. O'Reilly¹ ¹Department of Chemical Science, University of Limerick, Ireland ²Department of Physics, University of Limerick, Ireland ³School of Natural Sciences and Mathematics, Ural Federal University, EkaterinburgRussia ⁴Bernal Institute, University of Limerick, Ireland ⁵Physics Department & CICECO – Materials Institute of Aveiro, Portugal</p>
P3V	<p>Inkjet printing for lectin based biosensor application Vasilev S.G.*¹, Briana Mulligan Clarke B.1, Brennan G.2, Lebedev V.A.3, O'Reilly E.1 ¹Department of Chemical Science, Bernal Institute, University of Limerick, Limerick, V94 T9PX, Ireland ²Department of Physics, University of Limerick, Limerick, V94 T9PX, Ireland ³Bernal Institute, University of Limerick, Limerick, V94 T9PX, Ireland</p>
P4V	<p>Surface-Stabilization of Ultrathin Gold Nanowires for Application as Capacitive Sensors for Flexible Electronics V. Vetri Buratti¹, M. Maturi¹, A. Bonfiglio², L. Sambri¹, M. Comes Franchini¹ ¹Department of Industrial Chemistry "Toso Montanari", University of Bologna, Viale Risorgimento 4, 40136 Bologna, BO, Italy. ²Department of Electrical and Electronic Engineering, University of Cagliari, Via Marengo, 09123 Cagliari, CA, Italy.</p>
P5V	<p>Quantitative Comparison Between the Different Methods to Determine the Amplified Spontaneous Emission Threshold in Active Waveguides S. Milanese¹, M.L. De Giorgi¹, M. Anni¹ Dipartimento di Matematica e Fisica "Ennio De Giorgi", Università del Salento, Via per Arnesano, 73100 Lecce, Italy</p>
P6V	<p>Electric Field Facilitating Hole Transfer in Non-Fullerene Organic Solar Cells with A Negative HOMO Offset Yanfeng Liu¹, Jianyun Zhang², Guangqing Zhou³, Feng Liu³, Xiaozhang Zhu², Fengling Zhang¹ ¹Department of Physics, Chemistry and Biology, Linköping University, SE-581 83 Linköping, Sweden. ²Beijing National Laboratory for Molecular Sciences, CAS Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China. ³School of Chemistry and Chemical Engineering, Center for Advanced Electronic Materials and Devices, Shanghai Jiao Tong University, Shanghai 200240, China.</p>
P7V	<p>Ultrathin Polydopamine Films with Phospholipid Nanodiscs Containing a Glycophorin A Domain T. Marchesi D'Alvise¹, K. Wunderlich¹, T. Weil^{1,2} ¹Synthesis of Macromolecules (Max Planck institute for polymer research, Germany, Institute of Organic Chemistry III/Macromolecular Chemistry (Ulm University) Ulm, Germany</p>
P8V	<p>Development and characterization of 3D biopolymeric membranes functionalized with graphene-based nanomaterials and their integration in perfusion bioreactors for in vitro neural models Mantecón-Oria M.*¹, Diban N.1,2, Rivero M.J.1, Tapia O.2,3, Urriaga A.1,2 ¹. Department of Chemical and Biomolecular Engineering, ETSIIyT, University of Cantabria, Avda. Los Castros s/n, 39005 Santander, Spain; ². Instituto de Investigación Marqués de Valdecilla (IDIVAL), , Spain ³. Centro de Investigación Biomédica en Red sobre Enfermedades Neurodegenerativas (CIBERNED), Spain</p>