

**12th International Conference on Nanosciences
& Nanotechnologies – NN15**
Porto Palace Conference Centre & Hotel, 7-10 July 2015
Thessaloniki, Greece

ORAL PRESENTATIONS PROGRAM

Tuesday 7 July Porto Palace Conference Centre & Hotel			
08:00 – All Day	Registration to NN15		
	Keynote Session I (All Workshops of NN15)		
09:00– 09:15	'WELCOME & OPENING REMARKS' S. Logothetidis NN15 Chairman <i>Room: Crystal Hall</i>		
09:15 – 09:45 Keynote Talk	<i>Silicene and germanene: emerging artificial 2D electronic materials beyond graphene</i> G. Le Lay, <i>Aix-Marseille Uni., CNRS, PIIM UMR 7345, Campus de Saint Jérôme, 13397 Marseille Cedex, France</i>		
	Parallel Session W1 – NANO -ELECTRONICS -PHOTONICS -PHONONICS -PLASMONICS - ENERGY Session: Nanoelectronics I <i>Chair: D. Ioannou</i> <i>Room: Dock Six I</i>		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NANOSTRUCTURES I <i>Chair: A. Cavaleiro</i> <i>Room: Crystal Hall</i>
10:00-10:30 Invited	Microfluidic colloidal technologies: From ICT to health applications A. Leonard¹, M. Tardif^{1,2}, J. Cordeiro¹, C. Vaillier¹, C. Pin^{1,2}, O. Lecarme¹, K. Berton¹, T. Honegger¹, M. Zelsmann, E. Picard² and <u>D. Peyrade¹</u>. <i>1 Micronanotechnology for Health LTM CNRS, CEA, 2 SiNaPs, Inac/CEA Univ. Grenoble-Alpes FRANCE</i>	10:00-10:30 Invited	<i>Spatially controlled growth of highly crystalline ZnO nanowires by an inkjet-printing catalyst-free method</i> F. Güell¹, P. R. Martínez-Alanis¹, S. Khachadorian², A. Hoffmann², J. R. Morante^{1,3}, <i>1 Departament d'Electrònica, Universitat de Barcelona, Spain 2 Institut für Festkörperphysik, Technische Universität, Berlin, Germany 3 Institut de Recerca en Energia de Catalunya (IREC), Catalunya, Spain</i>
10:30-10:45	<i>SiGe nano-stressors for Ge strain-engineering</i> M. Barget¹, 1 M. Bollani², D. Chrastina³, L. Gagliano¹, L. Rossetto¹, D. Scopece¹, 1 V. Mondiali^{2,3}, J. Frigerio³, M. Borriello³, M. Lodari³, F. Pezzoli¹, F. Montalenti¹ and E. Bonera¹ <i>1 Università degli Studi Milano, Italy 2 IFN-CNR and L-NESS, via Anzani 42, I-22100 Como, Italy 3 L-NESS and Dipartimento di Fisica, Politecnico di Milano, Como, Italy</i>	10:30-10:45	<i>Room Temperature Synthesis and Characterization of Stable, Highly Luminescent PbS/CdS Core-Shell Quantum Dots with Emission Below 1100 nm</i> Emek Durmusoglu¹, Pinar Dagtepe², Yurdanur Turker³, Havva Yagci Acar¹ <i>1 Koc Uni., Graduate School of Materials Science and Engineering, Istanbul, Turkey 2 Kuantag A.Ş., Kısıklı Mahallesi Sarigazi Caddesi No:65, Istanbul, Turkey 3 Koc Uni., Department of Chemistry, Rumelifeneri Yolu, Istanbul, Turkey</i>
10:45-11:00	<i>Optical signal processing and diversity techniques for data error detection and correction using a-SiCH technology</i>	10:45-11:00	<i>Electronic Structure of ZnO Quantum Dots Studied by High-Frequency EPR, ESE, ENDOR and ODMR Spectroscopy</i>

<p><i>M. A. Vieira</i>^{1,2}, <i>M. Vieira</i>^{1,2,3}, <i>V. Silva</i>^{1,2}, <i>P. Louro</i>^{1,2} ¹ (ADEETC- Electronics Telecommunication and Computer Dept, ISEL- Instituto Superior de Engenharia de Lisboa,) Lisboa, Portugal ² (CTS-UNINOVA, Universidade Nova de Lisboa), Caparica, Portugal ³ (DEE-FCT-UNL, Universidade Nova de Lisboa), Caparica, Portugal</p>	<p><i>P.G. Baranov</i>¹, <i>N.G. Romanov</i>¹, <i>S.B. Orlinskii</i>², <i>C. De Mello Donega</i>³, <i>J. Schmidt</i>⁴, ¹Ioffe Physical-Technical Institute, St. Petersburg, 194021 Russia ²Federal Center of Shared Facilities, Kazan State Uni., Kazan, Russia ³Debye Institute for Nanomaterials Science, Utrecht Uni., Netherlands ⁴Huygens Laboratory, Leiden Uni., Netherlands</p>
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11:00–11:30	<p>Coffee Break-Exhibition-Networking POSTER SESSION I: All participants of Workshop 1, Workshop 2 (P2-1 to P2-64)& Worksho 5 should put their Posters to the NN15 Poster Area on Tuesday, 8 July (DAY 1) &and will remain until Wednesday, 9 July (DAY 2). <i>Room: Grand Pietra Hall</i></p> <p>EXPO FORUM 1</p>
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SESSION 11:30-13:30			
	<p>Parallel Session W1 – NANO -ELECTRONICS -PHOTONICS -PHONONICS -PLASMONICS - ENERGY Session: Nanoelectronics II - Nanophotonics <i>Chair: D. Payrade</i> <i>Room: Dock Six I</i></p>		<p>Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NANOSTRUCTURES II <i>Chair: F. Güell</i> <i>Room: Crystal Hall</i></p>
11:30-11:50 Invited	<p><i>On the Physical Origin of the Memory Mechanism in Floating Body Memory Cells</i> <i>D.E. Ioannou, A.Z. Badwan and Q. Li</i> <i>ECE Dept., George Mason Unniversity, Fairfax, VA22030, USA</i></p>	11:30 – 12:00 Invited	<p><i>Stability of Ag-containing nanocomposite coatings</i> <i>A. Cavaleiro</i>¹, <i>N. K. Manninen</i>^{1,2}, <i>S. Calderon</i>^{V1,2}, <i>S. Carvalho</i>² ¹-SEG-CEMUC Mechanical Engineering Department, Uni. of Coimbra, Portugal. ²- GRF-CFUM, Department of Physics, Uni. of Minho, Portugal.</p>
11:50-12:05	<p><i>Hybrid graphene-nanoparticle memory devices</i> <i>A. Holovchenko</i>¹, <i>J. Dugay</i>¹, <i>M. Giménez-Marqués</i>², <i>E. Coronado</i>² and <i>H.S.J. van der Zant</i>¹ ¹ Kavli Institute of Nanoscience, Delft Uni. of Technology, Netherlands ² Instituto de Ciencia Molecular, Unversidad de Valencia, , Spain</p>	12:00 – 12.30 Invited	<p><i>Hollow Colloidal Spheres and Their Self-assembly and Properties</i> <i>M. Chen, L. Hu, L. Wu</i> <i>Department of Materials Science, Fudan Uni., Shanghai 200433, China</i></p>
12:05–12:20	<p>Transmission of signals using white and visible LEDs for VLC applications <i>P. Louro</i>^{1,2}, <i>V. Silva</i>^{1,2}, <i>I. Rodrigues</i>¹, <i>M. A. Vieira</i>^{1,2}, <i>M. Vieira</i>^{1,2,3} Affiliation¹ (ADEETC- Electronics Telecommunication and Computer Dept, ISEL- Instituto Superior de Engenharia de Lisboa,) R. Conselheiro Emídio Navarro 1 – 1959-007 Lisboa, Portugal ² (CTS-UNINOVA, Universidade Nova de Lisboa) Portugal ³ (DEE-FCT-UNL, Universidade Nova de Lisboa), Portugal</p>		
12:20-12:35	<p>Heterojunction Nanowires for High Performance Electronic Devices <i>Y. Li</i>¹, <i>N. Chen</i>¹ CAS Key Laboratory of Organic Solids, Beijing National Laboratory for Molecular Sciences (BNLMS), Institute of Chemistry, Chinese Academy of Sciences, Beijing, China</p>	12:30 – 12:45	<p><i>Recent advances in the radiolabelling of nanoparticles using cyclotron-based techniques and their application</i> <i>E. Bellido, U. Holzwarth, M. Dalmiglio, G. Cotogno, I. Ojea-Jimenez, R. La Spina, D. Gilliland, A. Kaempfer, A. Kinsner-Ovaskainen, and N. Gibson</i> <i>Institute for Health and Consumer Protection - Nanobiosciences Unit, Italy.</i></p>
12:35 – 12:50	<p>Palladium/ γ- Fe2O3 nanoparticle mixtures for acetone, NO2 and CO gas sensors</p>	12:45 – 13:00 EU Project	<p><i>Synthesis and functional analysis of Ge- and In-based nanowires for phase change memories</i></p>

	<p><u>S. Luby</u>¹, M. Benkovicova¹, M. Jergel¹, P. Siffalovic¹, E. Majkova¹, R. Rella², M. G. Manera², S. Capone², A. Forleo² ¹Institute of Physics, Slovak Academy of Sciences, Dubravská cesta 9, 84511 Bratislava, Slovakia ²Institute of Microelectronics and Microsystems, C.N.R. – I. M. M., Lecce, Italy</p>		<p><u>M. Longo</u>¹ ¹Laboratorio MDM, IMM-CNR, Via Olivetti, 2 – 20864 Agrate Brianza, Italy</p>
12:50 – 13:05	<p>Mechanical and Electronic Properties of π-Conjugated Organometallic Nanomaterials <u>H. S. Kang</u>¹, F. Shojaei² ¹Department of Nano & Advanced Materials, Jeonju Uni., Chonju, Chonbuk, SOUTH ²Department of Chemistry, Chonbuk National Uni., Chonju, Chonbuk, SOUTH</p>	13:00 – 13:15 EU Project	<p><i>Integrated use of targeted synthesis, nanoparticle characterization and computational modeling for the design of safe nanoparticles</i> <u>R. Rallo</u>¹, F. Giralto¹, C.P. Roca¹, M. Brehm², R. Kühne², G. Schüürmann^{2,3}, S. Pokhrel⁴, L. Mädler⁴, K. Tamm⁵, T. Tamm⁵, V. Aruoja⁶, A. Kahru⁶, J. Scott-Fordsmand⁷, P.B. Sorensen⁷ ¹BIOCENIT Research Lab, Universitat Rovira i Virgili, Catalunya. ²UFZ Department of Ecological Chemistry, Helmholtz Centre for Environmental Research, Germany. ³Institute for Organic Chemistry, Technical Uni. Bergakademie Freiberg, Germany. ⁴Foundation Institute of Materials Science IWT, Uni. of Bremen, Bremen, Germany. ⁵Department of Chemistry, Uni. of Tartu, Estonia. ⁶Laboratory of Environmental Toxicology, National Institute of Chemical Physics and Biophysics, Estonia. ⁷Department of Bioscience, Aarhus Uni., Silkeborg, Denmark.</p>
13:05 – 13:25 Invited	<p>Organic Electronic Device Modeling With Gaussian Density-Of-States <u>Y. Bonnassieux</u>, S. Jung, and G. Horowitz LPICM, Ecole Polytechnique, CNRS (UMR7647), Palaiseau, France</p>	13:15 – 13:30 EU Project	<p><i>SETNanoMetro: TiO₂ Nanoparticles controlled morphology for metrological applications</i> L. Iannarelli¹, D. Imbraguglio², L. Pellutiè¹, L. Solera¹, G. Martra¹, V. Maurino¹, G. Spoto¹, A. M. Rossi² (1) Dipartimento di Chimica, Università degli Studi di Torino Torino, Italy (2) Istituto Nazionale di Ricerca Metrologica, Divisione Termodinamica, Torino Italy</p>
13:25-13:40	<p>Relative Stability of S-Au and Se-Au Bonding in Aromatic and Aliphatic Self-Assembled Monolayers – Exchange and Ion Desorption Experiments J. Ossowski¹, T. Wächter², L. Sillescu³, M. Kind³, A. Noworolska¹, F. Blobner⁴, P. Feulner⁴, D. Gnatek¹, J. Rysz¹, M. Bolte³, A. Terfort³, P. Cyganik¹, and M. Zharnikov² ¹ Smoluchowski Institute of Physics, Krakow, Poland ²Universität Heidelberg Heidelberg, Germany ³Universität Frankfurt, Germany ⁴, Technische Universität München, Garching, Germany</p>		

13:30 – 15:00	<p>Lunch Buffet Break Room: Grand Pietra Hall</p>
	<p>Poster Session I (DAY 1) - Exhibition – Networking Posters of Workshop 1, Workshop 2 (P2-1 to P2-64) & Worksho 5 (already in the area) Chair: D. Payrade, F. Güell, E Lidorikis Room: Grand Pietra Hall</p>

SESSION 15:00-17:30

	<p>Parallel Session W1 – Nano -Electronics -Photonics -Phononics -Plasmonics -Energy Session: Photonics Chair: D. Koutsogeorgis Room: Dock Six I</p>		<p>Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Biomaterials at Nanoscale Chair: C. Gravalidis Room: Crystal Hall</p>
15:00 – 15:30 Invited	<p>Nanostructured oxide electrodes for improved organic photovoltaics and organic light emitting diodes M. A. McLachlan¹, Department of Materials & Centre for Plastic Electronics, Imperial College London, London, UK</p>	15:00 – 15:15	<p><i>Biomedical Co-Cr-Mo components produced by Direct Metal Laser Sintering</i> <u>E. Girardin</u>¹, G. Barucca², P. Mengucci², F. Fiori¹, E. Bassoli³, A. Gatto³, L. Iuliano⁴, B. Rutkowski⁵ 1 DISCO, Università Politecnica delle Marche, Ancona, Italy 2 SIMAU, Università Politecnica delle Marche, Ancona, Italy 3 DIMeC, Uni. of Modena and Reggio Emilia, Italy 4 DISPEA, Politecnico di Torino, Torino, Italy 5 AGH Uni. of Science and Technology, 30-059 Krakow, Poland</p>
15:30 - 15:45	<p>Enhancing the acousto-optic interaction through simultaneous localization of light and sound: The phoxonic crystals N. Papanikolaou¹, E. Almpanis¹, N. Stefanou² 1 Institute of Nanoscience and Nanotechnology, NCSR "Demokritos," Athens, Greece 2 Section of Solid State Physics, Uni. of Athens, Athens, Greece</p>	15:15 – 15:30	<p><i>Injection printing of biodegradable scaffolds doped with antibacterial silver nanoparticles</i> <u>N. Michailidis</u>¹, A. Tsouknidas², M. Pantazopoulos¹, D. Papadopoulos², D. Tsipas¹ 1 Physical Metallurgy Laboratory, School of Engineering, Mechanical Engineering Department, AUTH, Greece 2 PLiN-Nanotechnology SA, Spectra Business Center, Thessaloniki Greece</p>
15:45 – 16:00	<p>Optically Triggered Infrared Photodetector I. Ramiro¹, A. Martí¹, E. Antolín¹, E. López¹, A. Datas¹, A. Luque¹, J. M. Ripalda² and Y. González² 1 Instituto de Energía Solar – Universidad Politécnica de Madrid E.T.S.I. Telecomunicación, Madrid, Spain. 2 Instituto de Microelectrónica de Madrid, CNM Madrid, Spain</p>	15:30 – 15:45	<p>Stability of Microbubbles under Ultrasound <u>E. Ozdemir</u>¹, I.U. Ayaz², and S.K. Ozdemir¹ 1 Department of Chemical Engineering, Izmir Institute of Technology, Urla, Izmir, 35430-TURKEY 2 Department of Biotechnology and Biomedical Engineering, Izmir Institute of Technology, Urla, Izmir, 35430-TURKEY</p>
16:00 – 16:30 Invited	<p>Colloidal Quantum Dot Optoelectronics: Photodetectors and Solar cells Gerasimos Konstantatos¹ 1 ICFO – The Institute of Photonic Sciences, Mediterranean Technology Park, Av. Carl Friedrich Gauss, 3 08860 Castelldefels (Barcelona), Spain,</p>	15:45 - 16:00 EU-PROJECT	<p><i>The eNanoMapper database for nanomaterial safety information: storage and query</i> <u>N. Jeliazkova</u>¹, N. Kochev², D. Vorgrimmler³, J. Hastings⁴, V. Jeliazkov¹ 1 Ideacconsult Ltd, 4 Angel Kanchev Str., 1000 Sofia, Bulgaria 2 Uni. of Plovdiv, Department of Analytical and Computer Chemistry, Bulgaria 3 in silico toxicology GmbH, 4057 Basel, Switzerland, 4 EMBL-EBI, Hinxton, UK</p>
16:30 – 16:45	<p><i>VIS/NIR wavelength selector using a tandem pi'n/pin a-SiC:H optical filter</i> M. Vieira^{1,2,3}, M. A. Vieira^{1,2}, V. Silva^{1,2}, P. Louro^{1,2}, I. Rodrigues¹ Affiliation¹ (ADEETC- Electronics Telecommunication and Computer Dept, ISEL-Instituto Superior de Engenharia de Lisboa,) RLisboa, Portugal 2 (CTS-UNINOVA, Universidade Nova de Lisboa) Caparica, Portugal Affiliation³ (DEE-FCT-UNL, Universidade Nova de Lisboa) Caparica, Portugal</p>	16:00-16:15	<p>Nanostructured thin films based on biomodified polymer brushes used as active cell culture carriers <u>E. Psarra</u>^{1,2}, U. König¹, J. K. Eichhorn¹, Martin Müller¹, E. Foster³, J. You³, Y. Ueda⁴, M. Stamm¹, A. Revzin³ and P. Uhlmann¹ 1 Leibniz Institute of Polymer Research Dresden, Dresden, Germany 2 The Technische Universität Dresden, Faculty of Science, Department of Chemistry, Chair of Physical Chemistry of Polymeric Materials, Germany 3 Department of Biomedical Engineering, Uni. of California, Davis, USA 4 Institute for Biomaterial Science Teltow, Germany</p>
16:45 - 17:00	<p>A three-dimensional infra-red metamaterial with asymmetric transmission A. Xomalis^{1,2}, G. Kenanakis¹, A. Selimis¹, M. Vamvakaki^{1,2}, M. Farsari¹, M. Kafesaki^{1,2}, C. M. Soukoulis^{1,3} and E. N. Economou¹ 1. IESL, Foundation for Research & Technology-Hellas, Heraklion, Greece 2. Department of Materials Science and Technology, Uni. of Crete, Greece 3. Iowa State Uni., Ames, 50011 Iowa</p>	16:15 - 16:30	<p>Dispersion of CNTs using designer peptides as bio surfactants to control cell behaviour <u>S. Tsagkaropoulou</u>¹, B. G Cousins¹ 1 UCL Centre for Nanotechnology & Regenerative Medicine, Division of Surgery & Interventional Science, Uni. College London, London, U. K.</p>

17:00 - 17:15	Enhanced Luminescence of Perchlorotriphenylamine (PTM) and Trichlorophenylamine (TTM) Radicals. D.-M. Nikolaidou ¹ , D. Blasi ² , I. Ratera ² , J. Veciana ² and F. Terenziani ¹ 1. Department of Chemistry, Università degli Studi di Parma, Parma, Italy 2. Institut de Ciencia de Materials de Barcelona (CSIC) Bellaterra, Spain	16:30 – 16:45	Biofunctionalization of Ti based alloy by deposition of bioactive ceramic coatings A.Vladescu ¹ , C.M.Cotrut ² , M.Braic ¹ , I.Dan ³ , A.Kiss ¹ , V.Braic ¹ , S.Ivanescu ³ 1National Institute for Optoelectronics, Magurele, Romania 2Uni. Politehnica of Bucharest, Bucharest, Romania 3SC R&D Consulting and Services, Bucharest, Romania
17:15 - 17:35 Invited	Organic polariton condensates in all-dielectric microcavities: Polariton interactions and coherence properties K. S. Daskalakis Department of Physics and Centre for Plastic Electronics, Imperial College London, London, , United Kingdom	16:45 -17:00	<i>Magnetic Classification: Proofs Of Concept And Nanoapplications Prospects.</i> <i>P. A Augusto</i> ^{1,2,*} , <i>T. Castelo-Grande</i> ² , <i>A. M. Estévez</i> ¹ , <i>P. M. Costa</i> ^{1,2} , <i>D. Barbosa</i> ² and <i>M^a C. Torrente</i> ¹ (1) <i>Departamento de Ingeniería Química y Textil, Universidad de Salamanca, SPAIN;</i> (2) <i>LEPAE, Departamento de Engenharia Química, Faculdade de Engenharia da Universidade doPorto, Porto, PORTUGAL</i>
		17:00-17:15	Towards developing computational models for risk assessment of engineered nanoparticles: NANOPUZZLES project summary <i>T. Puzyr</i> Uni. of Gdańsk, Faculty of Chemistry Wita Stwosza, Poland

17:30–18:30	Coffee Break-Exhibition-Networking <i>Room:Grand Pietra Hall</i>
	EXPO FORUM 2

Plenary Session (ISFOE15 Symposium and NN15 Conference) <i>Room: Grand Pietra Hall</i>	
18:30 – 19:00	<i>Introduction by Prof. S. Logothetidis, NANOTECHNOLOGY 2015 Chairman</i>
19:00 – 19:45 Plenary Talk	Plastic Electronics: Twenty-Five Years and Counting <i>Donal D.C. Bradley</i> <i>Centre for Plastic Electronics and Department of Physics,Blackett Laboratory, Imperial College London</i>
19:45 – 20:30 Plenary Talk	All-scale hierarchical thermoelectrics heat to electrical conversion <i>Mercouri G. Kanatzidis</i> <i>Department of Chemistry, Northwestern Uni., USA</i>
END OF FIRST DAY	

21:00	DRINKS & OFFICIAL DINNER (ISFOE15&NN15) PORTO PALACE CONFERENCE CENTRE & HOTEL - ROOF GARDEN
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Wednesday 8 July**Porto Palace Conference Centre & Hotel**

08:00 – All Day

Registration to NN15

9:30-11:00	Parallel Session Joined Session of ISFOE15 and W5 – Graphene and Related Materials, Processes & Applications 1 Session: GRAPHENE I <i>Chair: E. Lidorikis</i> <i>Room: Crystal Hall</i>		Parallel Session W3 – Nanomedicine Session: Basic Research in Nanomedicine towards Clinical Practice <i>Chair: M. Meunier</i> <i>Room: Dock Six II</i>
09:30-10:00 Invited	<i>Ultrafast photonics with graphene and related materials</i> <u>D. Popa</u> <i>Cambridge Graphene Centre, Uni. of Cambridge, Cambridge UK</i>	09:00 – 09:30 Invited	Plasmonics Enhanced Ultrafast Laser Nanosurgery of Living Cells <u>M. Meunier</u> <i>Polytechnique Montreal, Dept of Engineering Physic, Montreal, Canada</i>
10:00-10:30 Invited	Fully exfoliated graphenide solutions, Few Layer Graphene from Food Waste and Applications <u>A. Pénicaud</u> , a K. Kampioti, a K. Huang, a G. Bepete, a Y. Wang, a C. Drummond, a C. Ferreira de Matos, b D. Pennington, c, d J. Joaug, c, d C. Paukner, d C. Jaillet-Bartholome, a A. Derré, a F. Galembeck, e A. J. G. Zarbin a Centre de recherché Paul Pascal – CNRS, Université de Bordeaux, France b Federal Uni. of Parana, Brazil, c GasPlas, Oslo, Norway d Cambridge Nanosystems, Cambridge, UK e Uni. of Campinas, Brazil	09:30 – 09:45	Chitosan-graft-Poly (ϵ-Caprolactone) Copolymer loaded with Wharton's Jelly-derived Mesenchymal Stromal Cells: an inductive system for angiogenesis in vitro <u>E. Mygdali</u> ^{1,3} , M. Kaliva ^{1,2} , M. Vamvakaki ^{1,2} , C. Pontikoglou ⁴ , M. Chatzinikolaidou ^{1,2} ¹ Uni. of Crete, Dept. of Materials Science and Technology, Greece, ² IESL-FORTH, Heraklion, Greece, ³ Uni. of Crete, Dept. of Biology, 71003 Heraklion, Greece, ⁴ Uni. of Crete, Dept. of Haematology, School of Medicine, Heraklion, Greece
10:30-10:45	<i>Facile synthesis of Fe₂O₃-graphene nanocomposites by electrochemistry</i> <u>Z. Yuan Xia</u> ¹ , L. Ortolani ² , V. Morandi ² , V. Bellani ³ , V. Palermo ¹ ¹ Istituto per la Sintesi Organica e la Fotoreattività, Bologna, Italy ² Istituto per la Microelettronica e Microsistemi - Bologna, Italy ³ Dipartimento di Fisica and CNISM, Università degli Studi di Pavia, Pavia, Italy	09:45 – 10:00	Molecularly imprinted polymer nanogels and nanocomposites as antibody mimics for medical diagnostics and treatment <u>K. Haupt</u> , S. Beyazit, P. Bonomi, B. Tse Sum Bui <i>Compiègne Uni. of Technology, CNRS Lab for Enzyme and Cell Engineering Rue Roger Coultolenc, CS60319, 60203 Compiègne, France</i>
		10:00 – 10:15	Targeted vaccine delivery by soluble leishmanial antigens containing PLGA nanoparticles, conjugated with targeting TNFα mimicking peptide enhances protection against murine model of visceral leishmaniasis. M. Margaroni ^{1,2} , M. Agallou ¹ , E. Athanasiou ^{1,3} , D.K. Toubanak ¹ , K. Kontonikola ^{3,4} , K. Karidi ⁴ , O. Kammona ⁴ , C. Kiparissides ^{3,4} , E. Karagouni ¹ ¹ Laboratory of Cellular Immunology, Hellenic Pasteur Institute, Athens, Greece. ² School of Biology, National and Kapodistrian University of Athens, Athens, Greece ³ Department of Chemical Engineering, AUTH, Thessaloniki, Greece ⁴ CPERI, CRT Hellas, Thessaloniki, Greece
		10:15 – 10:45 Invited	Nucleoside-lipids as novel hybrid materials for drug delivery and tissue engineering applications <u>P. Barthélémy</u> ^{1,2} ¹ Univ. Bordeaux, ARNA laboratory, F-33000 Bordeaux, France. ² INSERM, U869, ARNA laboratory, F-33000 Bordeaux, France
		10:45-11:00	Iron oxide nanoparticles for targeted biomedical applications Synthesis, Characterization, Functionalization and antibodies binding

Katerina Gensila Malollari¹, Vassilis Zaspalis^{1,2}, Lori Nalbandian^{2,*}
¹Department of Chemical Engineering, Aristotle University, Thessaloniki, Greece
²CPERI/CERTH, Thessaloniki, GREECE

11:00 – 11:30

Coffee Break-Exhibition-Networking

Room: Grand Pietra Hall

Posters of Workshop 1, Workshop 2 (P2-1 to P2-64) & Workshop 5 (already in the area)

EXPO FORUM 3

SESSION 11:30-13:30

Keynote Session II (All Workshops of NN15)

Room: Timber Hall I

Chair: P. Kelires

11:30 – 12:00
Keynote Talk

Understanding perovskites and their solar cells

Mercouri G. Kanatzidis, Northwestern Uni., Evanston, IL, USA

Parallel Session
Joined Session of ISFOE15 and W5 – Graphene and Related Materials, Processes & Applications: GRAPHENEII
 Chair: D. Popa
 Room: Crystal Hall

Parallel Session
W3 – Nanomedicine masters Inflammation & Major Diseases
 Chair: K.Komvopoulos, C.Kiparissides

Room: Dock Six

12:00 – 12:30
Invited

Large-scale Manufacturing of Graphene and Related Materials Inks for Flexible (Opto)electronics
F. Torrisi¹
 Cambridge Graphene Centre, Department of engineering, Uni. of Cambridge, UK UK

11:30-12:00
Invited

Mucus Permeating Nanocarriers for the Delivery of Biopharmaceutics
 T. Karamanidou¹, E. Samaridou¹, V. Bourganis¹, K. Karidi², O. Kammona², C. Kiparissides^{1,2}
¹Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece
²CPERI, CERTH, Thessaloniki, Greece

12:30-12:45

Long, 140 ns electron spin lifetime in chemically synthesized graphene and related nanostructures and its strong interplay between the surface bound oxygen
Bálint Náfrádi¹, Mohammad Choucair², László Forró¹
¹Institute of Physics of Complex Matter, École polytechnique fédérale de Lausanne EPFL1015, Lausanne, Switzerland.
²School of Chemistry, The Uni. of Sydney,2006, Sydney, Australia

12:00-12:15

Endothelium-targeted liposomes carrying CCR2 antagonist reduce leukocyte infiltration into carotid artery wall
C. A. Constantinescu^{1,2}, D. Stan¹, M. Deleanu^{1,3}, M. Pirvulescu¹, E. Butoi¹, I. Manduteanu¹, M. Calin¹, M. Simionescu¹
¹Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania,
²UASVM, Faculty of Veterinary Medicine, Bucharest, Romania,
³UASVM, Faculty of Biotechnologies, Bucharest, Romania

12:45 –13:15
Invited

Graphene Coating for Remarkable Corrosion Resistance: Current State and Challenges
Raman Singh
 Department of Mechanical and Aerospace Engineering
 Department of Chemical Engineering
 17 College Walk, Monash Uni. (Melbourne), Vic 3800, Australia

12:15-12:30

Molecular simulations of interactions between TiO₂ nanoparticles and biomolecules
 E.G.Brandt, A.P. Lyubartsev
 Department of Materials and Environmental Chemistry, Stockholm Uni., Stockholm Sweden

13:15 –13:30
EU Project

Tuning the Properties of Graphene by Laser Induced Two-Photon Oxidation
P. Myllyperkiö¹, J. Aumanen¹, A. Johansson², J. Koivistoinen¹, M. Pettersson¹
 Departments of Chemistry¹ and Physics², Nanoscience Center, Uni. of Jyväskylä

12:30-12:45

Nanofibrous cellulose acetate scaffolds for cardiac tissue engineering
E. Chainoglou¹, V. Karagkiozaki¹, Th. Choli-Papadopoulou², P. Kavatzikidou³, D. Konstantinou¹, F. Pappa¹, H. Mavromanolis¹, S. Logothetidis¹
¹ Dept of Physics, Laboratory for Thin Films – Nanosystems and Nanometrology, AUTH, Thessaloniki, Greece
² Dept of Chemistry, Biochemistry Lab, AUTH, Greece
³ IESL (IESL), FORTH, Heraklion, Crete.

		12:45-13:00	Development of Curcumin-loaded lipid nanoemulsions functionalized with cell penetrating peptides as anti-inflammatory and anti-proliferative carriers V. Simion ¹ , D. Stan ¹ , C.A. Constantinescu ^{1,2} , M. Deleanu ^{1,3} , E. Dragan ¹ , M.M. Pirvulescu ¹ , A-M Gan ¹ , E. Butoi ¹ , I. Manduteanu ¹ , M. Calin ¹ <i>1Institute of Cellular Biology and Pathology "Nicolae Simionescu", Bucharest, Romania</i> <i>2UASVM, Faculty of Veterinary Medicine, Bucharest, Romania</i> <i>3 UASVM, Faculty of Biotechnologies, Bucharest, Romania</i>
		13:00-14:00	General Assembly of the Greek Nanomedicine Platform

13:30 – 14:45	Lunch Buffet Break <i>Room: Grand Pietra Hall</i>
	Poster Session I (DAY 2)- Exhibition – Networking <i>Chair: Chair: D. Payrade, F. Güell, E Lidorikis</i>

SESSION 15:00-17:30					
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NanoCharacterization & Nanoengineering I <i>Chair: S. Kassavetis</i> <i>Room: Timber Hall I</i>		Parallel Session Joined Session of ISFOE15 and W3 – Nanomedicine & W4 - Bioelectronics of NN15 Session: Bioelectronics I <i>Chair: M. Irimia-Vladu</i> <i>Room: Dock SixII</i>		Parallel Session Joined Session of ISFOE15 and W5 – Graphene and Related Materials, Processes & Applications: GRAPHENEIII <i>Chair: F. Torrasi</i> <i>Room: Crystal Hall</i>
15:00 – 15:20 Invited	<i>High Power Impulse Magnetron Sputtering</i> <i>Coating Growth in Ionised Conditions</i> <i>A.P. Ehiasarian</i> <i>Sheffield Hallam Uni. (National UK HIPIMS Technology Centre, Materials and Engineering Research Institute) UK</i>	15:00 –15:20 Invited	Multi parameter monitoring of live cells using organic electronics R.M. Owens, Department of Bioelectronics, Ecoles des Mines de St. Etienne, Centre Microelectronique de Provence, Gardanne, France	15:30-16:00 Invited	<i>Solution processable graphene derivatives and related 2D crystals for high efficient organic and perovskite solar cells</i> <i>E. Kymakis</i> <i>Center of Materials Technology and Photonics & Electrical Engineering Department,</i> <i>School of Applied Technology, Technological Educational Institute (TEI) of Crete, Crete, Greece.</i>
15:20 – 15:35	<i>Geometric tuning of charge and spin correlations in manganite superlattices</i> <i>K. Rogdakis^{1,a}, Z. Viskadourakis^{2, 1}, A.P. Petrović³, E. Choi⁴, J. Lee⁴ and C. Panagopoulos^{2,5,3,1}</i> <i>1 IESL-FORTH Heraklion Greece</i> <i>2 CCQCN, Uni. of Crete, Heraklion Greece</i> <i>3 School of Physical and Mathematical Sciences, Nanyang Technological Uni. Singapore</i> <i>4 School of Advanced Materials Science and Engineering, Sungkyunkwan Uni., Republic of Korea</i> <i>5 Department of Physics, Uni. of Crete, Greece</i>	15:20 –15:40 Invited	<i>Organic electronics biosensors for point of care applications</i> <i>M. Magliulo, M.Y. Mulla, K. Manoli, D. De Tullio, P. Seshadri, A. Tiwari, G. Palazzo, L. Torsi</i> <i>Dipartimento di Chimica, Università degli Studi di Bari Aldo MoroItaly</i>	16:00–16:30 Invited	<i>Polarized spin and valley transport across ferromagnetic silicene junctions, integer and half-integer quantum Hall effect</i> <i>P. Vasilopoulos</i> <i>Concordia Uni., Department of Physics, Canada</i>

15:35-15:50	<p><i>Double layered TiO₂-In₂O₃ nanostructured films as alternative photoanodes in photoelectrochemical devices</i> <i>A. Apostolopoulou^{1,2}, E. Stathatos¹, V. Vitoratos², P. Lianos³</i> <i>1-Technological-Educational Institute of Western Greece, Electrical Engineering Department, Patras, Greece.</i> <i>2-UOP, Department of Physics, Patras, Greece.</i> <i>3- Department of Chemical Engineering, Patras, Greece.</i></p>	15:40-16:00 Invited	<p><i>Biomolecular detection via plasmonic nanoplates integrated with OECTs</i> <i>Margaret Brennan Fournet</i> <i>Department of Bioelectronics, Ecole Nationale Supérieure des Mines, CMP-EMSE</i></p>	16:30 – 17:00 Invited	<p><i>Dirac Fermion Transport in Graphene through Multiple Magnetic Barriers: Modulation of Ballistic Conductance by Doping and Temperature</i> <i>N. Myoung and E. Lidorikis</i> <i>Department of Material Science and Engineering, University of Ioannina, Ioannina 45110, Greece</i></p>
15:50– 16:05	<p>"Development of Nano-Based Drilling Fluids for Improved Oil & Gas Applications" <i>Z. Vryzas¹, a, O. S. Mahmoud², b, V. Zaspalis³, c, H. A. Nasr-El-Din², d, V. C. Kelessidis¹,</i> <i>1Department of Petroleum Engineering, Texas A&M Uni. at Qatar, Education City, PO Box, 23874, Doha, Qatar</i> <i>2Department of Petroleum Engineering, Texas A&M Uni., TX 77843, College Station, U.S</i> <i>3Department of Chemical Engineering, AUTH, PO Box 54124, Thessaloniki, Greece</i></p>	16:00 – 16:15	<p><i>Imaging and chemical surface analysis of biomolecular functionalization of Mach-Zehnder on-chip immunosensors</i> <i>A. Budkowski¹, P. Petrou², K. Gajos¹, M. Angelopoulou², K. Awsiuk¹, A. Bernasik³, M.M. Marzec³, J. Rysz¹, K. Misiakos⁴, I. Raptis⁴, S. Kakabakos²</i> <i>1Inst. of Physics, Jagiellonian Uni., Łojasiewicza 11, 30-348 Kraków, Poland</i> <i>2INRaSTES, National Center for Sci.Research "Demokritos", Greece</i> <i>3FPACS & ACMiN, AGH-Uni. of Science & Technology, Poland</i> <i>4Inst. Nanoscience & Nanotechnology, NCSR Demokritos, Greece</i></p>	17:00 – 17:15	<p><i>Atomistic simulation of discrete breathers in single layer graphene</i> <i>A. Fraile¹, E. N. Koukaras², N. Lazarides¹, K. Papagelis², G. P. Tsironis¹</i> <i>1CCQCN, Department of Physics, Uni. of Crete, Greece</i> <i>2 Institute of Chemical Engineering Sciences, FORTH, Greece</i></p>
16:05– 16:20	<p>Optimizing SERS conditions by Au film's thermal dewetting <i>S.Andrikaki^{1,2}, K.Govatsi^{1,3}, K.S.Andrikopoulos¹, S.N.Yannopoulos¹, G.A.Voyiatzis¹</i> <i>1 FORTH/ICE-HT, Rio-Patras, Greece</i> <i>2 Department of Materials Science, Univ. of Patras, Rio-Patras, Greece</i> <i>3Department of Chemistry, Univ. of Patras, Rio-Patras, Greece</i></p>	16:15 – 16:30	<p>Fast response aptamer modified biosensors based on flexible carbon nanotube film <i>I. Komarov¹, I. Bobrinetsky¹, A. Golovin², A. Zalevsky², R. Aidarkhanov².</i> <i>1. Center for Probe Microscopy and Nanotechnology, National Research Uni. of Electronic Technology., Russia.</i> <i>2. Faculty of Bioengineering and Bioinformatics Moscow, Russia.</i></p>	17:15 – 17:30	<p>Ballistic transport in defective silicene and germanene nanoribbons: A first-principles study <i>K. Iordanidou¹, M. Houssa¹, B. van den Broek¹, G. Pourtois², V.V. Afanas'ev¹, A. Stesmans¹</i> <i>1Semiconductor Physics Laboratory, Department of Physics and Astronomy, Uni. of Leuven, Celestijnenlaan 200D, B-3001 Leuven, Belgium</i> <i>2IMEC, 75 Kapeldreef, B-3001, Leuven, Belgium</i></p>
16:20– 16:35	<p>Protective Ti-B-N coatings: The effect of Nitrogen <i>A. Spiliotis¹, S. Kassavetis¹, G.</i></p>	16:30 – 17:00 Invited	<p><i>MC3T3-E1 cell response of PVD-grown antibacterial thin films on piezoelectric PVDF Substrates for</i></p>	17:45-18:00	<p>Modeling Plasmon-Enhanced VIS-MIR Graphene Photodetectors <i>S. Evangelou, A. Dagkli and E. Lidorikis</i></p>

	Vourlias1, P. Patsalas1,2, S. Logothetidis1 1. AUTH, Physics Department, Thessaloniki, Greece 2. Uni. of Ioannina, Materials Science & Engineering Department, Ioannina, Greece		<i>sensor applications</i> <u>S. Carvalho</u> 1,7, S. M. Marques1, P. Rico2,3, I. Carvalho4,5, J. L. G. Ribelles2,3,6, S. Lanceros-Mendez8 1GRF-CFUM, Physics Department, Uni. of Minho, , Portugal 2Universitat Politècnica de València, Spain 3CIBER de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN), Valencia, Spain 4Czech Technical Uni. in Prague, Czech Republic 5 CEB, LIBRO-, Uni. of Minho, , Portugal 6Regenerative Medicine Unit, Centro de Investigación Príncipe Felipe, Valencia, Spain 7SEG-CEMUC Mechanical Engineering Department, Uni. of Coimbra, Portugal 8Physics Department, Uni. of Minho, Portugal		Department of Material Science and Engineering, University of Ioannina, Ioannina 45110, Greece
16:35 - 16:50	Formation of Highly Ordered Self-Assembled Monolayers of Alkynes on Au(111) Substrates <u>T. Zaba</u> 1, A. Noworolska1, C. Morris Bowers2, B. Breiten2, G.M. Whitesides2, and P. Cyganik1, 1Smoluchowski Institute of Physics, Jagiellonian Uni., Poland 2Department of Chemistry and Chemical Biology, Harvard Uni., 12 Oxford Street, Cambridge, Massachusetts 02138, USA			18:00 – 18:15	<i>Combined theory of carrier transport in Graphene/n-Semiconductor Schottky Barriers (SB) Part I: New Thermionic emission model for G/n-Semiconductor SB</i> AC Varonides, Uni. of Scranton, USA
16:50 - 17:05	X-ray spectroscopic studies of metal/insulator (transition-metal-oxide) interface <u>E.O. Filatova</u> 1,* A.S. Konashuk1, M.A. Konyushenko1, A.A. Sokolov1,3, I.V. Kozhevnikov2 1Institute of Physics, St. Petersburg State Uni., Russia 2 Institute of Crystallography, Russia 3Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany	17:00 – 17:15	In vitro extracellular stimulation and electrical recordings of quasi-periodic spikes in brain cancer cells <u>P. R. F. Rocha</u> 1, P. Schlett1, H. L. Gomes2,3, Paul W. M. Blom1, D. M. de Leeuw1 1Max Planck Institute for Polymer Research, Mainz, Germany 2Universidade do Algarve, Portugal 3Instituto de Telecomunicações, Lisboa, Portugal	18:15 – 18:30	<i>Bound states in the continuum: localization of Dirac-like fermions</i> L. Rosales 1, N. Cortes 1, M. Pacheco1, L. Chico2 and P.A. Orellana1 1 Physics Department, Universidad Técnica Federico Santa María, P.O box 110V, Valparaíso, Chile, 2 Instituto de Ciencia de Materiales de Madrid, Consejo Superior de Investigaciones Científicas Spain.
17:05-17:20	Wear mechanism of nanostructured Mo-W doped Carbon coatings in dry and boundary lubrication conditions P.E. Hovsepian, P. Mandal, A.P. Ehasarian Nanotechnology Centre for PVD Research, HIPIMS Research Centre, Sheffield Hallam University, UK	17:15 – 17:30	<i>Biofunctionalized gold nanoparticles as future tools for biosensors</i> <u>D. Arvaniti</u> 1, V. Karagkiozaki1, A. Papamichail1, C. Polyzoidis1,D. G. Fatouros2, S. Logothetidis1 1Nanomedicine Group, Lab for “Thin Films -Nanosystems & Nanometrology” (LTFN), Physics Department, AUTH, Greece 2School of Pharmacy, AUTH, Greece		

SESSION 17:30-18:45

	<p>Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NANOCONSTRUCTION Chair: S. Kassavetis Room: Timber Hall I</p>		<p>Parallel Session Joined Session of ISFOE15 and W3 – Nanomedicine & W4 - Bioelectronics of NN15 Session: Bioelectronics I Chair: R.Owens Room: Dock SixII</p>
17:30 – 18:00 Invited	<i>Correlating mechanical properties in cement mortars in macro and nano scale</i> <u>M. Stefanidou</u> ¹ , Karagiannis ^{P1} , Papadogiannis D.1, S. Kassavetis ² , S. Logothetidis ² Laboratory of Building Materials, Civil engineering Department AUTH Laboratory for thin films Nanosystems and Nanomerology Physics Department AUTH	17:30 – 17:50 Invited	<i>Bio-mimetic Nanostructures Self-assembled from Genetically Engineered Phage or Fusion Proteins: Towards Applications in Biosensing and Biomedicine</i> <u>A. Liu*</u> , F. Wang, P. Liu, and H. Qi Lab. for Biosensing, Qingdao Institute of Bioenergy & Bioprocess Technology, China.
18:00 – 18:15	<i>The Use of Innovative Materials to Innovative Architectural Applications</i> <i>Combining Forces for High Performance Structures</i> N.K. Parthenopoulou ¹ , M.Malindretos ² School of Architecture, Faculty of Engineering, AUTH, Thessaloniki, Greece	17:50 – 18:10 Invited	High performance biosensors based on solution-gated flexible transistors with functionalized gate electrodes <u>Feng Yan</u> Department of Applied Physics, The Hong Kong Polytechnic Uni., Hong Kong, China
18:15 – 18:30	<i>Nanocomposite coatings for the protection of marble against salts weathering</i> Spathis P.1*, Karapanagiotis I.2, Manoudis P.2, Kantiranis N.3, Zacharopoulou A.1 ¹ School of Chemistry, AUTH, 54124 Thessaloniki, Greece ² Uni. Ecclesiastical Academy of Thessaloniki, 54124 Thessaloniki, Greece ³ School of Geology, AUTH, 54124 Thessaloniki, Greece	18:10-18:30 Invited	Organic Electronics with Naturally-occurring Materials for Sustainable Future <u>Mihai IRIMIA-VLADU</u> Joanneum Research Forschungsgesellschaft mbH, Weiz, Austria
		18:30 – 18:45	Highly performance OECTs made by inkjet-printing for customized bioelectronics devices <u>E. Bihar</u> ¹ 2, M Saadaoui ¹ , G Malliaras ¹ , T Hervé ² ¹ Department of Bioelectronics, Ecole Nationale Supérieure des Mines, France ² Microvitae Technologies, 1480 Avenue d'Arménie, Gardanne 13120, France

20:00
BEACH PARTY (ISFOE15&NN15)

Thursday 9 July		Porto Palace Conference Centre & Hotel	
08:00 – All Day		Registration to NN15	
		Keynote Session II (All Workshops of NN15) <i>Room: Timber Hall II</i>	
09:00 – 09:30 Keynote Talk		FROM ISFOE15	
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy & W2- Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Theoretical Approaches & Modelling I <i>Chair: P. Kelires Room: Timber Hall II</i>		Parallel Session W3 – Nanomedicine <i>Session: Clinical Nanomedicine for CANCER</i> <i>Chair: K.Kousoulas, I. Vizirianakis Room: Dock Six II</i>
09:30-10:00 Invited	Hybrid nanometrology <i>V. Constantoudis, K. Ellinas, G. Boulousis, E. Gogolides Institute of Nanoscience and Nanotechnology, NCSR Demokritos Neapoleos and Patr. Grigoriou, 15310, Aghia Paraskevi, Greece</i>	09:30-09:50 Invited	Molecular Engineering of Human Herpes Simplex Virus Type-1 as a Safe Adjuvant Vector for Enhanced Immunotherapy against Viral Infections and Cancer <i>B. Stanfield, N. Jambunathan, R. Subramanian, P. Rider, V. Chouljenko, A. Saied, and K.G. Kousoulas. Division of Biotechnology and Molecular Medicine, Louisiana State University, USA</i>
10:00-10:15	<i>Flow parameters and LDL in stented coronary arteries under oscillating waveforms</i> <i>J. V. Soulis¹, D.G. Mpairaktaris¹, and G. D. Giannoglou²</i> <i>¹Fluid Mechanics Division, Faculty of Engineering Demokrition Uni. of Thrace, Xanthi, GR-67100, Greece</i>	09:50-10:10 Invited	Mechano-epigenetics <i>Y.F. Missirlis Laboratory of Biomechanics & Biomedical Engineering UOP, Patras, Greece</i>
10:15-10:30	<i>Flow parameters and LDL in stented coronary arteries under oscillating waveforms</i> <i>J. V. Soulis¹, D.G. Mpairaktaris¹, and G. D. Giannoglou²</i> <i>¹Fluid Mechanics Division, Faculty of Engineering Demokrition Uni. of Thrace, Xanthi, GR-67100, Greece</i> Discrete modeling and simulation of cementitious materials reinforced with CNTs <i>V. Balopoulos¹, N. Archontas², and S. J. Pantazopoulou³</i> <i>(1) Civil Engineering Dept., Democritus Uni. of Thrace (DUTH),</i>	10:10-10:25	Magnetic Hyperthermia: Current Status, Actual Research and Future Prospects <i>P.A. Augusto^{1,2,*}, T. Castelo-Grande², D. Barbosa², A.M. Estévez¹</i> <i>¹ APLICAMA Research Group, Departamento de Ingeniería Química y Textil, Salamanca, SPAIN;</i> <i>² LEPAE, Departamento de Engenharia Química, Faculdade de Engenharia da Universidade do Porto, Portugal</i>
			Parallel Session Joined Session of ISFOE15 and W5 – Graphene and Related Materials :GRAPHENE IV <i>Chair: R. Singh Room: Timber Hall I</i>
		09:30-10:00 Invited	The science and technology roadmap of graphene and related two-dimensional crystals <i>Francesco Bonaccorso Istituto Italiano di Tecnologia, Graphene Labs, Via Morego 30, 16163 Genova, Italy</i>
		10:00 – 10:15	Graphene Oxide-Metal Composite Electrodes for Electrochemical Capacitors <i>F.Eylul Sarac¹, Ugur Unal^{1,2,3}</i> <i>¹ Graduate School of Science and Engineering, Koç Uni., Rumelifeneri Yolu, Istanbul, Turkey</i> <i>² Chemistry Department, Koç Uni., Rumelifeneri Yolu, Istanbul, Turkey</i> <i>³ Koc Uni. Surface Science and Technology Center (KUYTAM), Koç Uni., Rumelifeneri Yolu, Istanbul, Turkey</i>
		10:15-10:30	Resonance nonlinear waves in waveguide with graphene monolayer <i>G.T.Adamashvili ...</i> <i>Technical Uni. of Georgia, Kostava str. 77, Tbilisi, Georgia</i>

	Greece (2) Electrical Engineering Dept., Democritus Uni. of Thrace (DUTH), Greece (3) Civil & Envntl. Engineering Dept., Univ. of Cyprus,				
10:30-10:45	<i>Ab initio calculations of the first π-ionization and π-π^* excitation energy of biologically important heterocyclic planar molecules</i> A. Morphis, M. Mantela, M. Tassi, and C. Simserides National and Kapodistrian Uni. of Athens, Faculty of Physics, Department of Solid State Physics, Athens, Greece	10:25-10:45 Invited	Toward balancing cellular toxicity and selectivity upon developing innovative bifunctional anticancer therapeutics Ioannis S. Vizirianakis Laboratory of Pharmacology, Department of Pharmaceutical Sciences, AUTH, GR-54124 Thessaloniki, Greece	10:30-10:45	Giant Near-Field Magnetic Wave Absorption Enhanced by Diamagnetic Ring Currents in Graphenes Sang Woo Kim ^{1,2} , Dong-Gyun Kim ² , Min-Woo Gang ² , Junmo Kang ³ , Jae-Boong Choi ^{3,5} , Byung Hee Hong ^{3,4} 1Clean Energy Research Center, Korea Institute of Science and Technology, Seoul, Republic of Korea 2Clean Energy & Chemical Engineering, KIST campus, Uni. of Science and Technology (UST), Korea. 3 SKKU Advanced Institute of Nanotechnology (SAINT) and Center for Human Interface Nano Technology (HINT), Sungkyunkwan Uni.Korea 4Department of Chemistry, Seoul National Uni., Seoul, Korea. 5School of Mechanical Engineering, Sungkyunkwan Uni., Korea.
10:45-11:00	<i>Berry Curvature In Topologically Nontrivial Materials</i> G. Konstantinou & K. Mouloupoulos Uni. of Cyprus, Department of Physics, Nicosia, Cyprus	10:45-11:00	<i>PulmoStent – An Airway Stent with a Multilayer Construction</i> K. Kurtenbach ¹ , V. Gesché ¹ , L. Thiebes ² , S. Jockenhoevel ^{1,2} 1 Department of Tissue Engineering & Textile Implants, RWTH Aachen University, Institute for Textile Technology, Germany 2Department of Tissue Engineering & Textile Implants, RWTH Aachen University, Helmholtz Institute for Biomedical Engineering, Germany	10:45-11:00	Defect Engineering in Graphene Monolayers to Quantify different Carrier Scattering Mechanisms Pawan Kumar Srivastava ¹ , Subhasis Ghosh ² 1Advanced Instrumentation Research Facility, Jawaharlal Nehru Uni. 2School of Physical Sciences, Jawaharlal Nehru Uni., New Delhi- (India)

11:00 – 11:30

Coffee Break-Exhibition-Networking

POSTER SESSION II:

Posters of Workshop 4 & Workshop 5 (already in the area)

All participants of Workshop 1, Workshop 2 (P2-1 to P2-64) & Worksho 5 should remove their Posters from the NN15 Poster Area.

All participants of Workshop 2 (P2-61 to P2-128), Workshop 3 & Workshop 4 should place their posters up to the NN15 Poster Area on Thursday, 10 July (Poster Session II – DAY 1) and will remain until Friday, 11 July (Poster Session II – DAY 2)

Room: Grand Pietra Hall

SESSION 11:30-13:30

Keynote Session II (All Workshops of NN15)

Room: Timber Hall II

Chair: E. Kaxiras

11:30 – 12:00
Keynote Talk

Controllable magnetic phases in 13C nanotubes
M. Damnjanovic, N. Lazic

NanoLab, CQTP, Faculty of Physics, Uni Belgrade, Serbia

NanoLab, CQTP, Faculty of Physics, Uni Belgrade, Serbia					
	<p>Parallel Session W2- Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NanoCharacterization & Nanoengineering II <i>Chair: P. Patsalas</i> <i>Room: Timber Hall II</i></p>		<p>Parallel Session W3 – Nanomedicine Session NANODIAGNOSTICS: Point-of-care Nanosystems <i>Chair: M.Kusko, T.Choli-Papadopoulou</i> <i>Room: Dock Six II</i></p>		<p>Parallel Session Joined Session of ISFOE15 and W5 – Graphene and Related Materials : Graheme V <i>Chair: F. Bonnacorso</i> <i>Room: Timber Hall I</i></p>
12:00-12.20 Invited	<p><i>High P-T nanoMechanics and Diamond Deformations</i> <u>Yusheng Zhao</u> <i>HiPSEC and Dept. of Physics & Astronomy,</i> <i>Uni. of Nevada, Las Vegas, NV 89154, USA</i></p>	12:00-12:15 EC Project	<p>Disc-shaped Point-of-Care platform for infectious disease diagnosis (DiscoGnosis) <i>K. Mitsakakis 1,2, S. Hin 1, V. Klein 1, O. Strohmeier 1,2, D. Mark 1,2, F. von Stetten 1,2, R. Zengerle 1,2,3</i> <i>1MEMS Applications, IMTEK - Department of Microsystems Engineering, Uni. of Freiburg, Germany</i> <i>2 Institut für Mikro- und Informationstechnik, Freiburg, Germany</i> <i>3 BIOSS – Centre for Biological Signalling Studies, Uni. of Freiburg, Germany</i></p>	12:00 – 12:15	<p>Large-area graphene synthesis over platinum surfaces by catalytic CVD: towards biosensor microdevices <u>L. Assaud</u>1,2,3, <u>H. Vergnes</u>1, <u>D. Evrard</u>2, <u>L. Salvagnac</u>3, <u>V. Conédéra</u>3, <u>P. Gros</u>2, <u>P. Temple-Boyer</u>3, <u>B. Caussat</u>1 1 CNRS, Laboratoire de Génie Chimique, Toulouse, France, 2 Université de Toulouse, , France 3 Laboratory for Analysis and Architecture of Systems, CNRS-UPS, Toulouse, France</p>
12:20 – 12.35	<p><i>Optical spectroscopy of self-organized carbon layers obtained by friction</i> <u>A. Mailian</u>1, <u>M. Mailian</u>2 1 Institute for Informatics, Yerevan, Armenia, 2 LTX-Credence Armenia, Yerevan, Armenia,.</p>	12:15-12:30	<p>Immunosensor for detection of epigenetic markers <u>S. Teixeira</u>1, <u>R. S. Conlan</u>2 1College of Engineering, Swansea Uni., SA2 8PP Swansea, UK 2 College of Medicine, Swansea Uni., SA2 8PP Swansea, UK</p>	12:15-12:30 EU Project	<p><i>Hybrid Solar Cells based on Graphene Anode Electrodes</i> <u>E.M. Pechlivan</u>, <u>D. Papas</u>, <u>A. Zachariadis</u>, <u>A. Papamichail</u>, <u>A. Laskarakis</u> <u>S. Logothetidis</u> <i>Lab for Thin Films, Nanosystems & Nanometrology (LTFN), Department of Physics, AUTH, Thessaloniki, Greece</i></p>
12:35 – 13:45 Invited	<p>Gradient Nanomechanics Across Scales and Disciplines: From Nanotechnology and Nanoenergy to Nanoneurology <u>E.C. Aifantis</u> AUTH, Thessaloniki, Greece Michigan Technological Uni., Houghton MI 49931, USA ITMO Uni., St. Petersburg 197101, Russia</p>	12:30-12:45	<p>Strategies for improving LSPR-coupling based sensing of DNA/RNA <u>K.L. Göeken</u>1, <u>V. Subramaniam</u>1,2, <u>R. Gill</u>1 1Nanobiophysics group, Uni. of Twente, Enschede, The Netherlands. 2FOM Institute AMOLF, Amsterdam, The Netherlands.</p>	12:30-12:45	<p><i>Graphene covalently functionalized with polymer for nonvolatile rewritable memory</i> <u>Luxing Wang</u>, <u>Bin Zhang</u>, <u>Yu Chen</u>* Key Lab for Advanced Materials, Institute of Applied Chemistry, East China Uni. of Science and Technology, China</p>
12:45 – 13:05 Invited	<p>Fast Assemblies of Supramolecular Nanocomposite in Thin Films <u>Ting Xu</u> University of California, Berkeley Materials Sciences Division, Lawrence Berkeley National Laboratory</p>	12:45-13:00	<p>Quantum dots for multiplexed clinical diagnostics: rapid FRET immunoassays for simultaneous and sensitive detection of three cancer biomarkers <u>S. Bhuckory</u>, <u>K. D. Wegner</u>, <u>X. Qiu</u>, <u>Y.Wu</u>, <u>N. Hildebrandt</u> <i>NanoBioPhotonics, Institut d'Electronique Fondamentale, Uni. Paris-, France</i></p>	12:45 – 13:00	<p><i>Fluorinated graphene films from functionalized graphene suspension</i> <u>N.A. Nebozhatikova</u>1, <u>I.V. Antonova</u>1,2, <u>V.Ya. Prinz</u>1 1 Institute of Semiconductors Physics SB RAS Russia, 630090, Novosibirsk, Lavrent'ev av. 13 2 Novosibirsk State Uni. Russia, 630090, Novosibirsk, Pirogov str. 2</p>
		13:00-13:15	<p>Surface Morphology of Microbubbles as Ultrasound Contrast Agent</p>		

			S.K. Ozdemir ¹ , G. Kurkcü ² , S. Coskun ² , and E. Ozdemir ¹ ¹ Department of Chemical Engineering, Izmir Institute of Technology, Urla, Izmir, 35430-TURKEY ² Department of Biotechnology and Biomedical Engineering, Izmir Institute of Technology, Izmir, TURKEY		
13:05-13:20	Quantitative analysis of interfaces in multilayer structures grown on SiC A. Gkanatsiou, Ch. B. Lioutas Department of Physics, AUTH, GR-54124 Thessaloniki, Greece	13:15-13:35 Invited	Reliable nanostructured silicon based substrates for detection and diagnosis in molecular medicine M.Simion, M.Kusko Lab of Nanobiotechnology, National Institute for Research and Development in Microtechnologies-IMT, Bucharest		

13:50 – 15:00	Lunch Buffet Break Room: Grand Pietra Hall
	Poster Session II Exhibition – Networking Poster Presentations of Workshop 4 & Workshop 5 at 14:00 – 15:00 Posters of Workshop 2 (P2-61 to P2-128), Workshop 3 & Workshop 4 (already in the area) Chair: R. Owens, T. Choli-Papadopoulou, P. Kelires Room: Grand Pietra Hall

SESSION 15:00-17:30					
Keynote Session III (All Workshops of NN15) Room: Timber Hall II Chair: M. Damjanovic					
15:00 – 15:30 Keynote Talk	Electronic and optical properties of functionalized graphene and 2D layered materials E. Kaxiras				
Parallel Session W1 – NANO -ELECTRONICS -PHOTONICS -PHONONICS - PLASMONICS -ENERGY Session: Plasmonics Chair: S. Kassavetis Room: Timber Hall II		Parallel Session Joined Session of ISFOE15 and W5 – Graphene and Related Materials GRAPHENE VI Chair: K. Papaggelis Room: Timber Hall I		Parallel Session W3 – Nanomedicine SpecialSession: Nanodentistry Chair: T.Mitsiadis, G. Orsini Room: Dock Six II	
15:30 – 16:00 Invited	Exciton relaxation dynamics in poly(3-hexylthiophene) thin films with plasmonic nanoparticles J. Pflieger, D. Rais, D. Kurunthu, B. Paruzel Institute of Macromolecular Chemistry AS CR,	15:30 – 16:00 Invited	Graphene ballistic high frequency integrated circuits G. Deligeorgis ¹ , R. Yakimova ² , G. Stavrinidis ¹ , G. Konstantinidis ¹ ¹ FORTH – IESL Microelectronics Research Group, Crete, Greece	15:30 – 16:00 Invited	Stem cell niches and their innervation: use of microfluidic devices T.A. Mitsiadis ¹ and P. Pagella ¹ ¹ Orofacial Development and Regeneration, Institute of

	Prague, Czech Republic		2Department of Physics, Chemistry, and Biology, Linköping Uni., Sweden		Oral Biology, Centre for Dental Medicine, University of Zurich, Zurich, Switzerland
16:00 –16:15	<p><i>Self-arranged plasmonic nanoparticles via diffusion in glasses</i> <u>A. Lipovskii</u>^{1,2}, <u>S. Chervinskii</u>^{2,3}, <u>M. Dussauze</u>⁴, <u>I. Reduto</u>¹, 1 Department of Physics and Technology of Nanostructures, St. Petersburg Academic Uni., Russia 2 Institute of Physics, Nanotechnology and Telecommunications, Polytechnic Uni., St. Petersburg, Russia 3Uni. of Eastern Finland, Finland 4 Uni. of Bordeaux, France</p>	16:00 –16:15	<p><i>Production of high quality MoS2 crystals of various thickness and stacking sequence</i> <u>A. Michail</u>^{1,4}, <u>K. Papagelis</u>^{1,2}, <u>C. Galiotis</u>^{1,3}, <u>J. Parthenios</u>¹ 1 FORTH, Institute of Chemical Engineering Sciences Patras (Greece) 2 Department of Materials Science UOP, Patras(Greece) 3 Department of Chemical Engineering UOP, Greece 4 Department of Physics UOP, Patras (Greece)</p>	16:00 – 16:30 Invited	<p>In vivo administration of dental epithelial stem cells in mouse incisor (line 1) <u>G. Orsini</u>¹, <u>L. Jimenez-Rojo</u>², <u>D. Natsiou</u>², <u>A. Putignano</u>¹, <u>T.A. Mitsiadis</u>² 1Department of Clinical Sciences and Stomatology, Polytechnic University of Marche, Ancona, Italy 2Institute of Oral Biology, Center for Dental Medicine, Faculty of Medicine, University of Zurich, Zurich, Switzerland</p>
16:15 - 16:30	<p><i>Enhancement of P3HT:PCBM photovoltaic shells efficiency incorporating core-shell Au@Ag plasmonic nanoparticles</i> <u>L. Tzounis</u>, <u>E. Chatzigeorgiou</u>, <u>C. Gravalidis</u>, <u>A. Papamichail</u>, <u>S. Logothetidis</u> Lab for Thin Films Nanosystems and Nanometrology, Physics Department, AUTH, Thessaloniki, Greece</p>	16:15 - 16:30	<p><i>Preparation and Property Enhancement of Reduced Graphite Oxide/Polyaniline Containing Nanofibers Prepared Via Electrospinning for Artificial Muscle Applications</i> <u>S. Ghobadi</u>¹, <u>S. Mehraeen</u>¹, <u>M. Papila</u>¹, <u>F. C. Cebeci</u>^{1, 2}, <u>S. A. Gursel</u>^{1, 2} 1Faculty of Engineering and Natural Sciences, Sabanci Uni., Istanbul, Turkey 1Sabanci Uni. Nanotechnology Research and Application Center, Sabanci Uni., , Turkey</p>	16:30-17:00 Invited	<p>From Synchrotron Radiation to the most recent breakthroughs in Clinical Regenerative Dentistry <u>A. Giuliani</u>¹, <u>M. Langer</u>², <u>C. Mangano</u>³, <u>F. Fiori</u>¹, <u>A. Manescu</u>¹, <u>S. Mazzoni</u>¹, <u>F. Rustichelli</u>¹, <u>A. Barone</u>⁴, <u>C. Mortellaro</u>⁵, <u>A. Piattelli</u>⁶, <u>G. Papaccio</u>⁷ 1Università Politecnica delle Marche – , Italy. 2Creatis, INSA-Lyon, Université CB Lyon 1 & European Synchrotron Radiation Facility 3University of Insubria - Varese, Italy 4 Università di Pisa - Dipartimento di Chirurgia –Italy 5Università del Piemonte Orientale - Dipartimento di Scienze Mediche – Novara, Italy 6University of Chieti -, Italy, 7Secondo Ateneo di Napoli -, Italy</p>
16:30 -17:00 Invited	<p><i>Laser Annealing as a strategy for plasmonic nano-structuring</i> <u>N. Kalfagiannis</u>¹, <u>E. Lidorikis</u>², <u>D.C. Koutsogeorgis</u>¹, <u>P. Patsalas</u>³ 1Nottingham Trent Uni., School of Science and Technology, Nottingham, UK 2Uni. of Ioannina, Department of Materials Science and Engineering, 45110 Ioannina, Greece 4AUTH, Department of Physics, Thessaloniki, Greece</p>	16:30 -16:45	<p>Optimizing the preparation parameters of GO and r-GO using improved method <u>M. Fathy</u>¹, <u>A.E. Hady</u>, <u>B. Kashyout</u>¹, <u>A. Gomaa</u>², <u>F. Taher</u>², <u>M..E. Fass</u>² 1ElectronicMaterialsDepartment, Advanced Technology&New Materials Institute, Egypt 2Chemistry Department, Faculty of Science (for Girls), Al-Azhar University, Cairo, Egypt</p>	17:00-17:15	<p>Alginate Hydrogels as 3D Scaffolds for Human Dental Pulp Stem Cells <u>G.Kaklamani</u>¹, <u>A.Woloszyk</u>², <u>T.A. Mitsiadis</u>², <u>S.H. Anastasiadis</u>^{1,3} 1FORTH/IESL, Heraklion Crete, Greece 2Institute of Oral Biology, University of Zurich, Switzerland 3Department of Chemistry, University of Crete, Greece</p>
17:00-17:15	<p>Solar cell efficiency enhancement from Silver and Gold Plasmonic Nanoparticles embedded in PEDOT:PSS matrix <u>E. Chatzigeorgiou</u>¹, <u>A. Papamichail</u>¹, <u>N. Kalfagiannis</u>², <u>C. Gravalidis</u>¹, <u>K. Kyriazoudis</u>¹, <u>L. Tzounis</u>¹, <u>D. Koutsogeorgis</u>², <u>S. Logothetidis</u>¹ 1Lab for Thin Films Nanosystems and Nanometrology,Physics Department,AUTH, Greece 2Nottingham Trent Uni.,UK</p>	16:45-17:00	<p><i>Mass spectrometric method to probe a graphene on copper by using argon cluster ions</i> <u>K. Mochiji</u>, <u>N. Inui</u>, <u>R. Asa</u>, and <u>K. Moritani</u> Graduate School of Engineering, Uni. of Hyogo, Japan</p>		
17:15 – 17:30	<p><i>New type of silica-protected gold anoresonators for Raman analysis of surfaces</i></p>				

K. Kołataj, J. Krajczewski, H.B. Abdulrahman, D. Aleksandrowska, A. Kudelski
Department of Chemistry, Uni. of Warsaw, Poland

17:30 –18:00 **Coffee Break-Exhibition-Networking**

SESSION 18:00-19:30

	W2- Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: NanoCharacterization & Nanoengineering III <i>Chair: C. Gravalidis</i> <i>Room: Timber Hall I</i>		Parallel Session W3 – Nanomedicine Session: NANOMEDICINE COMMERCIALIZATION <i>Chair: A.Falk, V.Karagkiozaki</i> <i>Room: Dock Six II</i>
18:00 - 18:30 Invited	Nanocomposite polymer-inorganic upconversion phosphor films made by the multiple-beam pulsed laser deposition method for photonic applications A. M Darwish ¹ , S. Wilson ¹ , A. Blackwell ¹ , K. Taylor ¹ , S. Sarkisov ² , D. Patel ³ , B. Koplitz ⁴ 1 Physics Department, Dillard Uni., New Orleans , USA, 2 SSS Optical Technologies, LLC, Huntsville, USA, 3 Department of Mathematics & Computer Science, Oakwood Uni., Huntsville, USA, 4 Chemistry Department, Tulane Uni., New Orleans, LA 70118, USA	18:00 -18:20 Invited	Safety strategy for market implementation in nanotechnologies <u>A. Falk</u> , S. Hartl ¹ <i>BioNanoNet Forschungsgesellschaft mbH, Elisabethstraße 11a, 8010 Graz, Austria</i>
18:30 – 18:45 Eu Project	Plast4Future: Injection moulding production technology for multi-functional nano-structured plastic components enabled by Nano Imprint Lithography A. Fernández ¹ , J. Medina ¹ , A. Francone ¹ , C. M. Sotomayor Torres ^{1,2} , N. Kehagias ¹ , C. Benkel ³ , M. Guttman ³ , L. H.Thamdrup ⁴ , B. Bilenberg ⁴ , T. Nielsen ⁴ 1Catalan Institute of Nanoscience and Nanotechnology (ICN2), Barcelona, Spain, 2 ICREA, Institució Catalana de Recerca i Estudis Avançats, 08010 Barcelona, Spain 3 Karlsruhe Institute of Technology (KIT), Germany 4NIL Technology ApS Diplomvej 381, DK-2800 Kongens Lyngby, Denmark	18:20– 18:40 Invited	SME Instrument and Fast Track to Innovation funding tools <u>A.Oikonomidou</u> EkinisiLab Hellenic Federation of Enterprise, Athens, Greece
18:45-19:00	Step-and-repeat Nanoimprint Lithography as tool for upscaling of micro/nanostructured surfaces A. Francone ¹ , N. Kehagias ¹ , C. M. Sotomayor Torres ^{1,2} 1Institut Català de Nanociència i Nanotecnologia, 08193 Bellaterra (Barcelona), Spain 2ICREA, Institució Catalana de Recerca i Estudis Avançats, 08010 Barcelona, Spain	18:40 – 19:00 Invited	IPR for Business Success Arhondula Papapanagiotou <i>Arhondula Papapanagiotou & Partners Law Firm, Athens</i>
		19:00-19:15	BL Nanobiomed SME, a Nanomedicine Catalyst for implants: From Bench to the Market <u>F.Pappa</u> , ^{1,2} V.Karagkiozaki ^{1,2} ¹ <i>Nanomedicine Group, LTFN Lab, AUTH, Greece</i> ² <i>BL Nanobiomed P.C, Thessaloniki, Greece</i>

END OF THIRD DAY

Friday 10 July

Porto Palace Conference Centre & Hotel

Keynote Session III (All Workshops of NN15)

Room:Crystal Hall

Chair: F. Re, Y.Missirlis

09:00 – 09:30 Keynote Talk	<p><i>Acid tumor microenvironment as a target for nanotherapies</i> S. Avnet, N. Baldini University of Bologna and Istituto Ortopedico Rizzoli, Bologna, Italy</p>				
I	<p>Parallel Session W1 – Nano -Electronics - Photonics -Phononics - Plasmonics -Energy Session: Energy Chair:P. Patsalas Room:Timber Hall I</p>		<p>Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Polymer Nanotechnologies I Chair: V. Koutsos Room:Timber Hall II</p>	<p>Parallel Session W3 – Nanomedicine against NEURODEGENERATIVE DISEASES Chair: F. Re, Y.Missirlis Room:Crystal Hall</p>	
09:30-10:00 Invited	<p><i>Flux method as new approaches to material fabrication and interface design for lithium ion rechargeable batteries</i> K. Teshima^{1,2}, H. Wagata², Z. Nobuyuki^{1,2} Affiliation (1Center for Energy and Environmental Science, Shinshu Uni., 2Department of Environmental Science and Technology, Shinshu Uni.) 4-17-1 Wakasato, Shinshu, Japan</p>	09:30-10:00 Invited	<p><i>Glass Transition Behavior of Thin Polymer Films: The Effect of Molecular Architecture</i> E. Glynos^{1,2}, G. Sakellariou³, P. F. Green² 1IESL, Foundation for Research and Technology, P.O. Box 1385, Crete, Heraklion, GR 71110, Hellas 2Department of Materials Science and Engineering, Uni. of Michigan, Ann Arbor, 48109, USA 3Departement of Chemistry, Uni. of Athens, Panepistimioupolis, Zografou, 15771, Athens, Hellas</p>	09:30-09:50 Invited	<p>The potential use of multi-functional nanoliposomes in the treatment of Alzheimer's Disease F. Re¹, M. C. Balducci², G.Forloni², Masserini¹, S. Mancini¹ 1Dept. of Health Sciences, Uni. of Milano-Bicocca, via Cadore 48, 20900 Monza, Italy 2Dept. of Neuroscience, IRCCS-Istituto di Ricerche Farmacologiche Mario Negri, Via La Masa, 20156 Milano, Italy</p>
10:00-10:15	<p>Concentrated solar radiation on p-i-n lattice-matched GaAs/superlattice hybrid solar cells, for higher efficiency AC Varonides Uni. of Scranton Scranton, PA 18510, USA</p>	10:00-10:15	<p><i>Effect of SiO₂ Nanoparticles on the Morphology and Dynamics of Poly(ethylene oxide) Polymer Chains</i> K. Chrissopoulou¹, H. Papananou^{1,2}, K. S. Andrikopoulos³, G. A. Voyiatzis³, M. Labardi⁴, D. Prevosto⁴ and S. H. Anastasiadis^{1,2} 1IESL, FORTH, P.O. Box 1527, 711 10, Heraklion, Crete, Greece 2 Department of Chemistry, Uni. of Crete, Crete, Greece 3Institute of Chemical Engineering Sciences, FORTH, Patras, Greece 4CNR-IPCF, Department of Physics, Uni. of Pisa, Pisa, Italy</p>	09:50-10:05	<p>Biomimetic Nanostructured Scaffolds for Functional Neural Regeneration F. Pappa¹, V. Karagkiozaki¹, D. Konstantinou¹, E. Chainoglou¹, A. Papamixail¹, Th. Choli-Papadopoulou², S. Logothetidis¹ 1. Nanomedicine Group, Lab for "Thin Films- Nanosystems & Nanometrology", Department of Physics, AUTh, Greece 2. Biochemistry Laboratory, Department of Chemistry, AUTh, Greece</p>
10:15-10:30 Eu Project	<p><i>NanoEIS - Nanotechnology Education for Industry and Society</i></p>	10:15-10:30	<p><i>Polymer-Templated Assembly of Mesoporous Polyoxometalate-Organosilica Frameworks for Catalytic Applications</i> G.S. Armatas, E.D. Koutsouroubi , A.K. Xylouri</p>	10:05-10:20	<p>Enhanced Delivery of Iron Oxide Nanoparticles to the Brain Through Transient Disruption of the Blood-Brain Barrier D.W. Miller¹, Z.-Z. Sun¹, M. Worden², and J. Thliveris⁴ T. Hegmann^{2,3} 1Department of Pharmacology and Therapeutics, Uni. of Manitoba,</p>

	C. Kiparissides ^{1,2} , O. Kammona ² , A. Duschl ³ 1Department of Chemical Engineering, AUTH, Thessaloniki, Greece 2CPERI, CERTH, 3Department of Molecular Biology, Faculty of Natural Sciences, Uni. of Salzburg, Hellbrunnerstrasse 34, 5020 Salzburg, Austria		Department of Materials Science and Technology, Uni. of Crete, Heraklion, Greece		Winnipeg, MB, CANADA 2Department of Chemistry & Biochemistry and 3Chemical Physics Interdisciplinary Program - Liquid Crystal Institute, Kent State Uni., Kent, OH, USA 3Department of Anatomy and Pathophysiology, Uni. of Manitoba, Winnipeg, MB, CANADA
10:30-10:45	Designing modulated semiconductor nanowires for optimal thermoelectric efficiency X.Zianni Dept. of Aircraft Technology, Technological Educational Institution (TEI) of Sterea Ellada, Greece.	10:30 – 10:45	Biocidal block copolymers for self-polishing coating applications M. Vamvakaki ^{1,2} , T. Manouras ¹ , E. Koufakis ^{1,2} , S. H. Anastasiadis ^{1,3} , 1 IESL, FORTH, Heraklion Crete, Greece 2 Department of Chemistry, Uni. of Crete, Heraklion Crete, Greece 3 Department of Materials Science and Technology, Uni. of Crete, Heraklion Crete, Greece	10:20-10:35	The interaction of liposomal carriers of diamond and platinum nanoparticles with glioma cells in vitro B. Strojny ¹ , M. Grodzik ¹ , A. Lewera ² , E. Sawosz ¹ , N. Kurantowicz ¹ 1Dept. of Nanobiotechnology, Warsaw Uni. of Life Sciences 8 Ciszewskiego str., Warsaw, Poland, 2Laboratory of Electroanalytical Chemistry, Uni. of Warsaw, Poland
10:45 - 11:00	Reduced Carrier Recombination in PbS - CuInS ₂ Quantum Dot Solar Cells Zhenhua Sun, 1 Gary Sitbon, 1 Thomas Pons, 1 Artem A. Bakulin, 2 and Zhuoying Chen ^{1*} 1. LPEM UMR 8213, ESPCI-ParisTech/CNRS/UPMC, France 2. FOM Institute AMOLF, Science Park 104, Amsterdam 1098 XG, The Netherlands	10:45-11:00	The Principle of Electrocarding Nano Yarns G.K.Stylios Research institute for Flexible Materials RIFleX SBC, Galashiels, TD1 3HF, Scotland	10:35-10:55 Invited	Nanomedicine in Neurosurgery A. Chatzistiriou Lecturer of Physiology, Medical School, AUTH, Greece
				10:55-11:15 Invited	Forecasting nano law: the role of researchers and scientists as opinion leaders influencing policy Dr. Ilise Feitshans Institute for Work and Health Uni. of Lausanne, Switzerland

11:00-11:30

Coffee Break-Exhibition-Networking
Posters of Workshop 2 (P2-61 to P2-128), Workshop 3 & Workshop 4 (already in the area)
Room: Grand Pietra Hall

SESSION 11:30-13:30

Parallel Session W1 – Nano -Electronics -Photonics - Phononics -Plasmonics -Energy Renewable Energy & Storage: Future Trends & Funding Opportunities Chair:S. Kassavetis	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Polymer Nanotechnologies II Chair: S. Anastasiadis Room:Timber Hall II	Parallel Session W3 – Nanomedicine Special Session: NANOTOXICITY Chair: S. E. Moya, E.Emmanouil-Nikoloussi Room:Crystal Hall
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	Room: Timber Hall I				
11:30 – 12:00 Invited	How fast-controlled perovskite crystallization kinetics reduce the recombination in thin film solar cells <u>Thomas Stergiopoulos</u> , ¹ Wei Zhang, ¹ Sam Stranks, ^{1,2} Henry J. Snaith ¹ ¹ Uni. of Oxford, Clarendon Laboratory, UK ² Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, U.S.A.	11:30-12:00 Invited	<i>Relationship between morphology and charge carrier transport in ultrathin layers of conjugated polymers</i> <u>L. Janasz</u> ¹ , <u>I. Tsydel</u> ¹ , <u>B. Luszczynska</u> ¹ , <u>M. Gradzka</u> ² , <u>K. Janus</u> ² , <u>A. Kiersnowski</u> ² , <u>T. Makowski</u> ³ , <u>W. Pisula</u> ⁴ , <u>J. Ulanski</u> ¹ ¹ Department of Molecular Physics, Lodz Uni. of Technology, 90-924 Lodz, Poland ² Faculty of Chemistry, Wroclaw Uni. of Technology, 50-370 Wroclaw, Poland ³ Centre of Molecular and Macromolecular Studies, PAS, 90-362 Lodz, Poland ⁴ Max Planck Institute for Polymer Research, 55128 Mainz, Germany	11:30-11:50 Invited	Design of hybrid poly (lactide-co- glycolic) nanoparticles and in vivo fate studies for the assessment of nanoparticle degradation <u>S. E. Moya</u> , G.Romero, Y.Qiu, M.Echeverria, Marco Marradi, Vanessa Gómez-Vallejo, Jordi Llop CIC biomaGUNE, Paseo Miramón 182, 20009 San Sebastián, Spain
12:00 – 12:30 Invited Talk	Novel hole transporters for perovskite pigmented Solar Cells <u>Shahzada Ahmad</u> , F. Javier Ramos, Samrana Kazim Abengoa Research, C/ Energía Solar nº 1, Sevilla, Spain,	12:00-12:15	Photogeneration of charge carriers in P3HT:PCBM blends <u>A. Stefaniuk-Grams</u> , J. Jung, J. Ulanski Department of Molecular Physics, Faculty of Chemistry, Lodz Uni. of Technology Zeromskiego 116, 90-924 Lodz, Poland anna.stefaniuk-grams@p.lodz.pl	11:50-12:05	Estimating first results and possible cytotoxicity after using orthopaedic implants covered in biofunctionalised chitosan-polycaprolactone nanoscaffolds in goats S. Logothetidis ¹ , V. Karagiozaki ¹ , A. Mounkas ¹ , T.Choli-Papadopoulou ² , S. Fares ³ , S. Kenanidis ³ K Kouzi-Koliakou ⁴ , N. Giadinis ⁵ , N. Papaioannou ⁶ , C. Mpekiari ¹ .Laboratory of Thin Films and Nanotechnology Physics Department, Auth. ² .Biochemistry Department, Auth ³ .3rd Orthopaedics clinic, general hospital G.N.Papageorgiou, School of Medicine ⁴ .Laboratory of Histology-Embryology and Anthropology, School of Medicine, Scientific director of BIOHELLENIKA ⁵ .Farming animals clinic, Veterinary School, Auth ⁶ .Department of pathology, Veterinary School, Auth ⁷ .Veterinarian of research center of general hospital G.N.Papageorgiou
12:30 – 13:00 Invited Talk	Solution Processing of Light Absorbers for Emerging Photovoltaics: Organic Bulk Heterojunction and Perovskite Photovoltaics <u>Aram Amassian</u> ¹ ¹ Solar and Photovoltaic Engineering Research Center, Division of Physical Sciences and Engineering, King Abdullah Uni. of Science and Technology, 4700 KAUST, Thuwal 23955-6900, Saudi Arabia	12:15-12:30 EU Project	<i>Nanocomposite Materials for Photocatalytic Degradation of Pollutants</i> <u>Curri M. L.</u> Consiglio Nazionale delle Ricerche - Istituto per i Processi Chimico Fisici c/o Dipartimento di Chimica, via Orabona 4, 70126 Bari (Italy) lucia.curri@ba.ipcf.cnr.it		
13:00 -13:15 Eu Project	Custom Designed Thin Film Photovoltaic Modules <u>N. Adamovic</u> ¹ Vienna Uni. of Technology, Institute of Sensor and Actuator Systems Floragasse 7/2, 1040 Vienna, Austria	12:30-12:45	RAFT Synthesis, Characterization and Physicochemical Properties of Polyelectrolyte Homopolymers and Diblock Copolymer Brushes <u>N. Politakos</u> ¹ , S. Azinas ^{1,2} , L. Yate ³ & S. Moya ¹ ¹ Biosurfaces, San Sebastian, Spain ² Structural Biology Unit, Derio, Spain ³ Surface Analysis and Fabrication Platform San Sebastian, Spain	12:05-12:20	Nanoparticle Toxicity vs Electronic Structure – From Building Blocks to Solid-State Quantum Chemistry <u>G. Schüürmann</u> , ^{a,b} M. Brehm, ^a D. Wondrusch, ^{a,b} R. Kühnea ^a UFZ Department of Ecological Chemistry, Helmholtz Centre for Environmental Research, Permoserstr. 15, 04318 Leipzig, Germany ^b Institute for Organic Chemistry, Technical Uni. Bergakademie Freiberg, Leipziger Str. 29, 09596 Freiberg, Germany
13:15-13:30	Reduced Graphene Oxide Micromesh Electrodes Decorated with Metal Nanoparticles for Large, Area, Flexible, Organic Photovoltaic Devices <u>K. Petridis</u> ^{1,2} , D.rios Konios ^{1,3} , G. Kakavelakis ¹ , M. Sygletou ⁴ , K.riaki	12:45-13:00	<i>Modification of Metal-Organic Frameworks and Porous Organic Polymers for Efficient Gas Storage and Separation</i> <u>Myunghyun Paik Suh</u> , Dae-Woon Lim, Hye Jung Park, Siyoung Sung	12:20-12:35	Coarse-Grained Modelling of Formation of Nanoparticle Protein Corona H. Lopez and <u>V. Lobaskin</u> School of Physics and Complex and Adaptive Systems Laboratory, Uni. College Dublin, Belfield, Dublin 4, Ireland

<p>Savva⁴, E. Stratakis⁴, E. Kymakis¹ ¹Center of Materials Technology and Photonics & Electrical Engineering Department, School of Applied Technology, Technological Educational Institute of Crete, Greece ² Department of Electronic Engineering, School of Applied Sciences, TEI of Crete, Greece ³Department of Chemistry, Uni. of Crete, Greece ⁴ IESL (IESL), Foundation for Research and Technology – Hellas (FORTH), Heraklion, 71110, Greece</p>		<p>Department of Chemistry, Seoul National Uni. Gwanak-ro, Gwanak-gu, Seoul 151-742, Republic of Korea</p>		
	13:00-13:15	<p>Thermal energy harvesting for large-scale applications using polymer/CNT nanocomposites and fiber/CNT hierarchical structures L. Tzounis^{1,2}, C. Gravalidis¹, P. Pötschke², E. Mäder², M. Stamm², S. Logothetidis¹ ¹Lab for Thin Films Nanosystems and Nanometrology, Physics Department, AUTH, Thessaloniki, Greece ²Leibniz-Institut für Polymerforschung Dresden, Hohe Straße 6, 01069 Dresden, Germany</p>	12:35-12:50	<p>Statistical optimization of chitosan nanoparticles as protein vehicles using Response Surface Methodology R.M. Aghdam^{*1}, N. Kiaie², S.H. Ahmadi Tafti¹, J.I. Mobarakeh³ ¹Tehran Heart Hospital Research Center, Tehran Uni. of Medical Sciences, Tehran, Iran ²Department of Tissue Engineering, Amir Kabir Uni. of Technology, Tehran, Iran ³Department of pharmacology, School of Medicine, Islamic Azad Uni., Tehran Medical Science Branch, Tehran, Iran</p>
			12:50-13:05	<p>Passive endocytosis of nanoparticles: importance of shape, orientation, size, and surface functionalization S. Dasgupta, K. Singh, Q. Yu, T. Auth, and G. Gompper Institute of Complex Systems, Forschungszentrum Jülich, Germany</p>
			13:05-13:25 Invited	<p>When Good Cells Go Bad: the Role of p53 A. Chhatriwala, G.A. Papadantonakis Department of Chemistry, University of Illinois at Chicago USA</p>
			13:25-13:45 Invited	<p>Light and Ultrastructural Morphology and Permeability of Placenta Barrier and it's importance in testing the developmental toxicity of nanoparticles E.-N. Emmanouil-Nikoloussi, School of Medicine, AUTH, Greece</p>

13:30 – 15:00

Lunch Buffet Break

Room: Grand Pietra Hall

Poster Session II (DAY 2) - Exhibition – Networking

Poster Presentations of Workshop 2 (P2-61 to P2-128), Workshop 3 & Workshop 4 at 14:00 – 15:00

Chair: R. Owens, T. Choli-Papadopoulou, P. Kelires

Room: Grand Pietra Hall

SESSION 15:00-17:30

Parallel Session

W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction

Session: NanoCharacterization & Nanoengineering IV

Parallel Session

W3 – Nanomedicine Special Session V: NANO-ORTHOPEDICS

Chair: M. ChatziniKolaidou, K. Komvopoulos

Room: Crystal Hall

	Chair: P. Patsalas Room: Timber Hall II		
15:00 – 15:30 Invited	Monte Carlo study of interacting magnetic nanoparticles with cubic magnetocrystalline anisotropy M. Sadek,1 M. Marchwiany,1 M. Woinska,1 A. Majhofer,1 J. Gosk,2A. Twardowski1 and J. Szczytko,1 1Uni. of Warsaw, Faculty of Physics, IEP, Poland 2 Faculty of Physics, Warsaw Uni. of Technology, Poland.	15:00 – 15:30 Invited	Microfluidics in biomaterials for bone tissue engineering E. Babaliari1,2, G. Petekidis1,2, Maria Chatzinikolaidou1,2 1 Uni. of Crete, Dept. of Materials Science and Technology, 70013 Heraklio, Greece, 2 IESL-FORTH, 71110 Heraklion, Greece
15:30 –15:45	SNS junctions based on Bismuth nanowires in very high magnetic fields A. Kasumov1,5, C. Li1, A. Murani1, S. Sengupta2, F. Fortuna2, K. Napolskii3,4, D. Koshkodaev4, G. Tsirlina3, Y. Kasumov5, I. Khodos5, R. Deblock1, M. Ferrier1, S. Guéron1 and H. Bouchiat1 1. LPS, Univ. Paris-Sud, CNRS, France 2. CSNSM, Univ. Paris-Sud, IN2P3, France 3. Faculty of Chemistry, Moscow State Uni., , Russia 4. Dept. of materials science, Moscow State Uni., Russia 5. Institute of Microelectronics Technology and High Purity Materials, Russia	15:30 –15:45	Electrospun Graphene/PCL Scaffolds for Neural Stimulation O. M. Duman1, A. Sendemir Urkmez2 1Uni. of Fribourg, Department of Biology, Fribourg, Switzerland 2Ege Uni., Bioengineering Department, Bornova, Izmir, Turkey
15:45 - 16:00	A web application for deriving descriptors of nanomaterials from the analysis of TEM images M. Kotsiadris1, P. Doganis1, H. Chomenidis1, G. Drakakis1, P. Sopasakis1,2, H. Sarimveis1 School of Chemical Engineering, NTUA IMT Institute for Advanced Studies Lucca, , Italy.	15:45 - 16:00	In vitro Biological Response of a Chitosan-graft-poly(e-Caprolactone) Copolymer for Bone Repair A. Georgopoulou1,2, M. Kaliva1,2, M. Vamvakaki1,2, M. Chatzinikolaidou1,2 1 IESL, FORTH, Heraklion, Crete, Greece 2Department of Materials Science and Technology, Uni. of Crete, Greece
16:00-16:15	Production of three-dimensional quantum dot lattice of Ge/Si core-shell quantum dots and Si/Ge layers in an alumina glass matrix M Buljan1, N Radić1, J Sancho-Paramon1, V Janicki1, J Grenzer2, I Bogdanović-Radović1, Z Siketić1, M Ivanda1, A Utrobičić3, R Hübner2, R Weidauer2, V Valeš4, J Endres4, T Car1, M Jerčinović1, J Roško5, S Bernstorff6 and V Holy4	16:00-16:30 Invited	Nanotechnology and Orthopedics Fares Sayegh, MD Orthopedic Clinics, Papageorgiou Hospital, Thessaloniki, Greece
16:15 - 16:30	The nanoscale Kirkendall effect in binary alloys: trapping gold in oxide nanoshells Damien Thiry,1 Leopoldo Molina-Luna, 2Pierre-Yves Tessier, 1 Eric Gautron,1 Adrien Chauvin,1 Ke Du, 3 Junjun Ding, 3 Chang-Hwan Choi, 3 Abdel-Aziz El Mel,1	16:30 - 17:00 Invited	Cell Membrane-Cytoskeleton Elasticity K. Komvopoulos1 Department of Mechanical Engineering, Uni. of California, Berkeley, CA 94720, USA
16:30-16:45	One-pot synthesis of Au-Pt core-shell nanoparticles in microemulsions: a simulation study on the cage-like effect C. Tojo1, D. Buceta2, M. A. López-Quintela2		
16:45-17:00	Cu-Ag bimetal nanoparticles by spinodal decomposition F. Misják, E. Bokányi, G. Radnóczy		
SESSION 17:30-19:00			
	Parallel Session W3 – Nanomedicine Session Chair: T. Choli-Papadopoulou, J. Lisziewicz Room: Crystal Hall		
17:30-17:45	Formation of Phytosome Containing Silymarin Using Thin Layer-Hydration Technique Aimed for Oral Delivery W. Maryana, H. Rachmawati, D. Mudhakar Research Group of Pharmaceutics, School of Pharmacy, Institut Teknologi Bandung Jl. Ganesha No. 10, Bandung 40132, Indonesia		

17:45-18:00	<p>Structural Nanoscale Imaging of Elastin Fibers under Different Conditions by Atomic Force Microscopy <u>K. Sambani</u>, D. Yova <i>Biomedical Optics & Applied Biophysics Lab, School of Electrical and Computer Engineering, NTUA, Athens, Greece</i></p>
18:00-18:15	<p>Synthesis of Near IR Emitting L-cysteine/bPEI coated Ag2S QDs as Gene Delivery Agents <u>F. Demir</u> 1, Didar ASIK 1, Havva YAGCI ACAR1 <i>1Materials Science and Engineering, Koc Uni. Rumeli Feneri Yolu, Sariyer, 34450, Istanbul, Turkey</i></p>
18:15-18:35 Invited	<p>Characterization of DNA/polymer Nanoparticles and Application for Cancer immunotherapy <u>J. Lisziewicz</u>, E.Toke, O.Lorincz, L.Molnar, Z.Csiszovszki, E.Somogyi, J.Toth, K.Pantya, F.Lori <i>EMMUNITY Inc., Bethesda MD, United States and Budapest, Hungary</i></p>
18:45-19:00	<p style="text-align: center;">AWARDS CEREMONY <i>Room: Crystal Hall</i> NN15 CLOSING REMARKS</p>

**12th International Conference on Nanosciences
& Nanotechnologies – NN15**
Porto Palace Conference Centre & Hotel, 7 - 10 July 2015
Thessaloniki, Greece

POSTER PRESENTATIONS Program

Workshop 1: Plasmonics - Nanoelectronics & Clean Energy	
P1-1	<i>Compact Drain Current Model for Nanoscale Junctionless Triple-Gate FinFETs</i> A. Tsormpatzoglou ¹ , D. H. Tassis ¹ , P. Dimitrakis ² , V. Ioannou-Sougleridis ² , P. Normand ² , C. A. Dimitriadis ¹ 1 Department of Physics, AUTH, Thessaloniki, Greece 2 Nanoscience and Nanotechnology, NCSR 'Demokritos', Athens, Greece
P1-2	<i>Nonvolatile resistive switching in polycrystalline BiFeO₃ thin films</i> Yao Shuai, Wenbo Luo, Chuangui Wu, Huizhong Zeng, Xinqiang Pan, Ping Zhang, Wanli Zhang University of Electronic Science and Technology of China, North Jianshe Road, Chengdu, China
P1-3	<i>PYS study for band alignment of the SnSe/CdS heterojunction</i> Haeyun Cho ¹ , Vasudeva Reddy Minnam Reddy ² , Chinho Park ^{* 3} School of Chemical Engineering, Yeungnam University 280 Daehak-Ro, Gyeongsan, Republic of Korea
P1-4	<i>Electrical Conductive Fibres Based on CNT/CB Composite</i> J. Mrosczcok ¹ , D. Kunkel ² , G. Seide ¹ , D. Lellinger ² , T. Gries ¹ 1 Institut für Textiltechnik of RWTH Aachen University (Nano Modified Fibres), Aachen, Germany 2 Fraunhofer-Institut für Betriebsfestigkeit und Systemzuverlässigkeit LBF, Darmstadt, Germany
P1-5	<i>Wireless innovative sensors network application for health condition monitoring of micro/nanomanufacturing chains</i> D. Ulieru, X. Vila, Oana-Maria Ulieru, A. Topor SITEX 45 SRL, 114, GHICA TEI BLVD, Bl. 40, AP. 2, DEPT. 2 Bucharest, 023709, Romania
P1-6	<i>Dielectric Coefficients and Charge Transport in Novel TlInS₂<Er> Crystals</i> S. N. Mustafaeva, ... Institute of Physics, National Academy of Sciences of Azerbaijan G. Javid pr., 131, AZ 1143, Baku, Azerbaijan
P1-7	<i>Novel Low-Cost Conductive Layers for Printed Electronics</i> H. Cronin ^{1,2} , Z. Stoeva ² , M. Brown ³ , J. Gregory ³ , M. Shkunov ¹ , S. R. P. Silva ¹ [1] University of Surrey, Guildford, UK; [2] DZP Technologies Ltd., Cambridge, UK; [3] Heraeus Noblelight Ltd., Cambridge, UK
P1-8	<i>Ultra High Frequency Rectifier Based On Pt-IGZO Schottky Diodes</i> J. Zhang ¹ , A. Song ¹ University of Manchester, Oxford Rd, Manchester M13 9PL, UK
P1-9	<i>Cylindrical Surrounding Double Gate (CSDG) MOSFET to compensate shortcoming of vacuum gate dielectric Cylindrical Surrounding Gate (CSG) MOSFET</i> Jay Hind Kumar Verma ¹ , Yogesh Pratap ¹ , Subhasis Halder ² , R. S. Gupta ³ , Mridula Gupta ¹ , 1 Semiconductor Device Research Laboratory, Department of Electronic Science University of Delhi South Campus, New Delhi, India

	<p>2Department of Physics, Motilal Nehru College, University of Delhi, New Delhi, India 3Department of Electronics and Communication Engineering Maharaja Agrasen Institute of Technology, Delhi-, India</p>
P1-10	<p>Majority Logical Function Using a pⁱnⁱpⁱn a-SiC:H Structure V.Silva^{1,2}, M.Barata^{1,2}, P.Louro^{1,2}, M.A. Vieira^{1,2}, M.Vieira^{1,2,3} 1 (ADEETC- Electronics Telecommunication and Computer Dept,ISEL-Instituto Superior de Engenharia de Lisboa,)R. Conselheiro Emídio Navarro 1 – 1959-007 Lisboa, Portugal 2 (CTS-UNINOVA, Universidade Nova de Lisboa)Quinta da Torre, Monte da Caparica, 2829-516, Caparica, Portugal 3 (DEE-FACT-UNL, Universidade Nova de Lisboa)Quinta da Torre, Monte da Caparica, 2829-516, Caparica, Portugal</p>
P1-11	<p>Correlation of optical properties and emissive characteristics of polymers for OLED applications M. Gioti¹, C. I. Chaidou¹, D. Kokkinos¹, C. Pitsalidis¹, L. Tzounis¹, S. Logothetidis¹, A.K. Andreopoulou^{2,3}, E. Mparmpoutsis², J.K. Kallitsis^{2,3} 1Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, AUTH, Thessaloniki, Greece 2Department of Chemistry, UPATRAS, University Campus, Rio-Patras , Greece 3 FORTH Hellas, Institute of Chemical Engineering Sciences (FORTH/ICE-HT), Platani Str., Patras , Greece</p>
P1-12	<p>X-ray nanophotonics on base of planar waveguide-resonators E.V. Egorov, V.K. Egorov Institute of Technology Microelectronics Russian Academy of Science (IMT RAS) Chernogolovka, Moscow district, street academic Osyp'an, 6, 142432 Russia</p>
P1-13	<p>Two photons absorption organometallic compounds by nanotechnologies applications for optoswitching devices of optical communications networks D.Ulieru¹, A. Matei², I.C.Vasiliiu³. O.A.Ulieru¹, X.Vila¹ 1SITEX 45 SRL ,R&D Department, 2The National Institute for Laser, Plasma & Radiation Physics (INFLPR) , 3The National R&D Institute for Optoelectronics – INOE 2000,2 Bucharest, ,Romania 3412. Atomistilor Str, Magurele, Bucharest, 077129 Romania</p>
P1-14	<p>Optical Properties of ZnS nanoparticles J. Trajić¹, R. Kostić¹, N. Romčević¹, M. Romčević¹, M. Mitrić², V. Lazović¹, P. Balaž³, D. Stojanović¹ 1Institute of Physics, University of Belgrade, 11080 Belgrade, Serbia 2Institute Vinča, University of Belgrade, 11000 Belgrade, Serbia 3Institute of Geotechnics, Slovak Academy of Sciences, 043 53 Košice, Slovakia</p>
P1-15	<p>Variation of the Defect Central Frequency due to Morphological Changes in Macroporous Silicon Photonic Crystals D. Cardador, D. Vega, A. Rodríguez Departament d'Enginyeria Electrònica, Universitat Politècnica de Catalunya (UPC), Barcelona 08034, Spain</p>
P1-16	<p>Intracellular Chemical Imaging with a mid-IR QCL illuminated s-SNOM W. S. Hart¹, H. Amrania¹, I. Carter¹, K. Weir¹, E. Yoxall², L. Woodley³, M. Sroya⁴, S. Sousha⁵, C. Coombes⁵ and C. C. Phillips¹ 1 Department of Physics, Imperial College, London, SW7 2AZ, UK 2 CIC NanoGUNE, Tolosa Hiribidea 76, 20018, Donostia - San Sebastian, Spain 3 Department of Surgery and Cancer, Imperial College, Charing Cross Hospital, London, W6 8RF, UK 4 Department of Surgery and Cancer, Imperial College Healthcare Tissue Bank, Charing Cross, Hospital, London, , UK 5 Department of Surgery and Cancer, Faculty of Medicine, ICTEM, London, W12 0NN, UK</p>
P1-17	<p>Synthesis of In_xGa_{1-x}N alloy using simple and low cost technique Marwa Fathy¹, Sara Gad¹, Abd El Hady B. Kashyout¹, Yehia Badr² 1 Electronic Materials Department, Advanced Technology & New Materials Institute, City for Scientific Research and Technology Applications (SRTA-City), P.O. Box 21934, New Borg, El-Arab, Alexandria, Egypt 2 National Institute of Laser Enhanced Science, Laser Interaction with Matter Department, Cairo University, Cairo, Egypt</p>
P1-18	<p>Bond Orbital Tight Binding Modelling Of Nanoheterostructures Hilmi Ünlü istanbul Technical University, Faculty of Science and Letters Department of Physics, Maslak 34469 Istanbul, Turkey, Maslak 34469 Istanbul, Turkey</p>
P1-19	<p>Controllable Supramolecular Architectures for Modulating Optical Properties on the Molecular Aggregation Level</p>

	Yongjun Li ¹ , Runsheng Jiang ¹ CAS Key Laboratory of Organic Solids, Beijing National Laboratory for Molecular Sciences (BNLMS), Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100190, P. R. China
P1-20	Single-electron Transport through Quantum Point Contact G.Bilgeç Akyüz ¹ , A.Sıddıki ² ¹ Physics Department, Faculty Arts and Sciences, Adnan Menderes, 09100 Aydın, Turkey ² Physics Department, Faculty of Science and Letters, Mimar Sinan Fine Arts University, 34380 Istanbul, Turkey
P1-21	Numerical modelling of Cd-free buffer layers in CIGS solar cells N. Severino ¹ , R. A. Mereu ² , S. Binetti ² , M. Acciarri ² , N. Bednar ¹ , N. Adamovic ¹ ¹ Institute of Sensor and Actuator Systems, Vienna University of Technology, Floragasse 7/E366-MST, A-1040 Vienna ² Dept. of Materials Science and Solar Energy Research Center (MIB-SOLAR), University of Milano Bicocca, Via Cozzi 55, 20125 Milan, Italy
P1-22	Two-dimensional few cycle optical pulse in a system of carbon nanotubes under the constant electric field E.N. Galkina ^{1,2} , M.B. Belonenko ^{2,3} ¹ Volgograd State Medical University, 400131, pl. Pavshikh Bortsov 1, Volgograd, Russia ² Volgograd Institute of Business, 400010, Kachintsev 63, Volgograd, Russia ³ Volgograd State University, 400062, pr. Universitetskij 100, Volgograd, Russia
P1-23	Electronic structure of modified or not DNA bases with the linear combination of atomic orbitals method M. Mantela, and C. Simserides National and Kapodistrian University of Athens, Faculty of Physics, Department of Solid State Physics, Panepistimiopolis, GR-15784 Zografos, Athens, Greece
P1-24	Enhanced graphene photodetector based on plasmonic perfect absorber A. Kotanidis and E. Lidorikis Department of Materials Science and Engineering, University of Ioannina, 45110, Greece
P1-25	Effect of Ag Nanoparticles on Resistive Switching of PEDOT:PSS Memory Devices N. Kalfagiannis ¹ , D.C. Koutsogeorgis ¹ , C. Gravalidis ³ , E. Chatzigeorgiou ³ , S. Logothetidis ³ , N.A. Hastas ² ¹ Nottingham Trent University, School of Science and Technology, Nottingham, UK ² Solid State Section, Department of Physics, AUTH, Thessaloniki, Greece ³ Laboratory for Thin Films – Nanosystems and Nanometrology (LTFN), Department of Physics, AUTH, Thessaloniki, Greece
P1-26	Optical Properties of Silver Subwavelength Gratings Coated by Organic Thin Film Y.A. Draginda, S. P.Palto, A.R. Geivandov, V.V. Artemov and M.V. Gorkunov ¹ , Shubnikov Institute of Crystallography RASRussia
P1-27	Manipulation of the luminescence of ZnO thin film via coupling with plasmonic metal nanoparticles S. Dellis ¹ , N. Kalfagiannis ² , A. Khairi ² , P. Patsalas ¹ , D.C. Koutsogeorgis ² ¹ Department of Physics, AUTH, Thessaloniki, GR-, Greece; ² School of Science and Technology, Nottingham Trent University, Nottingham, UK
P1-28	Plasmonic properties of metal nanoparticles in glass and bottom-up approach for their formation: numerical simulation V. Zhurikhina ¹ , A. Redkov ² , S. Scherbak ¹ , O. Shustova ¹ , A. Lipovskii ^{1,2} ¹ Institute of Physics, Nanotechnology and Telecommunications, Peter the Great St.Petersburg, Polytechnic University, Polytechnicheskaja 29, St. Petersburg, 195251 Russia ² Department of Physics and Technology of Nanostructures, St. Petersburg Academic University, Khlopina 8/3, St. Petersburg, 194021 Russia
P1-29	Plasmon enhanced silicon solar cells with silver nanoparticles T.D. Dzhafarov ^{1*} , A.M. Pashaev ² , B.G. Tagiev ² , Sh.S. Aslanov ¹ , Sh.H. Ragimov ¹ , A.A. Aliev ² ¹ Institute of Physics, Azerbaijan National Academy of Sciences, Javid Str. 33, AZ-1143 Baku, Azerbaijan ² National Aviation Academy of Azerbaijan, Bina 25-km, AZ-1045 Baku, Azerbaijan
P1-30	Vibrational and Photoluminescence properties of ZnIn ₂ Se ₄ Nanoparticle Myeongho Kim ¹ , Babu Pejjai ² , Vasudeva Reddy Minna Reddy ³ , Tulasi Ramakrishna Rdeey Kotte ⁴ and Chinho Park* School of chemical Engineering, Yeungnam University, 214-1, Dae-dong, Gyeongsan 712-749, South Korea. Department of Physics, Sri Venkateswara University, Tirupati, India.
P1-31	High-resolution study of ZnO layers deposited by atomic layer deposition

	<p>B. Pécz¹, Zs. Baji¹, Z.E. Horváth¹, Z. Lábadi¹, A. Kovács² and G. Dimitrakopoulos³ ¹ MTA EK MFA Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary ² Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons, Peter Grünberg Institute, Germany ³ AUTH, Faculty of Sciences, School of Physics, , Thessaloniki</p>
P1-32	<p>Solution processed Copper (I) Thiocyanate (CuSCN) with metal nanoparticles as a hole transport layer in BHJ organic photovoltaics K. Petridis^{1,2}, D. Konios¹, G. Kakavelakis¹, N. Wijeyasinghe³, T. Anthopoulos³, E. Stratakis⁴, E. Kymakis¹ ¹Center of Materials Technology and Photonics & Electrical Engineering Department, School of Applied Technology, Technological Educational Institute of Crete, Heraklion, 71004, Greece ² Department of Electronic Engineering, School of Applied Sciences, TEI of Crete, Chania, 73132, Greece ³Faculty of Natural Sciences, Department of Physics, Blackett Laboratories, Imperial College of London, UK ⁴ IESL (IESL), FORTH – Hellas (FORTH), Heraklion, 71110, Greece</p>
P1-33	<p>Electrode modification with WO₃ in vanadium redox flow batteries S.M. Park¹, H. Kim^{1,*} ¹School of Materials Science & Engineering, Yeungnam University, Gyeongsan 712-749 Korea</p>
P1-34	<p>Light management in back-textured thin-film solar cells achieved by hot embossing process N. Bednar, N. Severino, N. Adamovic Institute of Sensor and Actuator Systems, Vienna University of Technology, Floragasse 2/7, 1040 Vienna, Austria</p>
P1-35	<p>Synthesis and utilization of tetragonal BaTiO₃ nanoparticles, for new energy conversion concepts U. Wunderwald^{1,2}, P. Meisner^{1,2}, M. Coeler^{1,2}, R. Belitz^{1,2}, E. Mehner³, T. Leisegang³, D.C. Meyer³, J. Friedrich^{1,2} ¹Fraunhofer THM, Am St.-Niclas-Schacht 13, D-09599 Freiberg, Germany ²Fraunhofer IISB, Schottkystr.10, D-91058 Erlangen, Germany, ³TU Bergakademie Freiberg, Inst. f. Exp. Physik, Leipziger Str. 23, D-09599 Freiberg, Germany</p>
P1-36	<p>Synthesis and evaluation of novel Pt-NiTiO₃/C nanostructured catalysts as highly active and selective cathodes for Alkaline Direct Alcohol Fuel Cells applications A. Hernández-Ramírez¹, M.E. Sánchez-Castro^{1,2}, I. Alonso-Lemus², K.K. Aruna³, P. Karthikeyan³, R. Manoharan³, F.J. Rodríguez-Varela^{1,2,*} ¹Programa de Nanociencias y Nanotecnología, Cinvestav Unidad Saltillo, Coah., México ²Grupo de Sustentabilidad de los Recursos Naturales, Cinvestav Unidad Saltillo, Coah., México ³Electrochemical Energy Materials Laboratories Nanotech Research Facility, PSG Institute of Advanced Studies, Coimbatore, India 641 004</p>
P1-37	<p>Physical-Chemical Characterization Of Natural Clinoptilolite Sites In Mexico S.E. Toledo F1, G. Mondragón T2, F.G. Manzanilla.3, Brenda Mondragón T4. ¹ Benemérita Universidad Autónoma de Puebla, Instituto de Ciencias, Depto. de Investigaciones en Zeolitas Puebla, Pue.,México ² Fundación NPS Global, Córdoba 883, Buenos Aires, Argentina ³Universidad Politécnica de Puebla, Ingeniería Electrónica y de Comunicaciones. Tercer carril del Ejido Serrano S/N, San Mateo Cuanalá, Puebla, México, ⁴Benemérita Universidad Autónoma de Puebla, Facultad de Filosofía y Letras Ciudad universitaria, Puebla, Pue, México</p>
P1-38	<p>Study Of Two Factors For The Cooling Solar Cycle By Adsorption With The Clinoptilolite Natural – Methanol Pair S.E. Toledo F1, G. Mondragón T2, J.E.J. Moreno³ ¹Benemérita Universidad Autónoma de Puebla, Instituto de Ciencias, Depto. de Investigaciones en Zeolitas Edif. 103 “O”atrás del Estadio Universitario, Ciudad universitaria, Puebla, Pue, México ² Fundación NPS Global, Córdoba 883, Buenos Aires, Argentina ³ Benemérita Universidad Autónoma de Puebla, Facultad de ing. Química, Ciudad universitaria, Puebla, Pue, México</p>
P1-39	<p>Porous Si/ZnO antireflection nanostructures by electrochemical methods: microstructure and photoluminescence S. Dellis¹, I. Fekas^{1,*}, N. Pliatsikas¹, N. Kalfagiannis², G. Vourlias¹, D.C. Koutsogeorgis², and P. Patsalas¹ ¹Department of Physics, Aristotle University of Thessaloniki, Thessaloniki,Greece; ²School of Science and Technology, Nottingham Trent University, Nottingham, UK</p>
P1-40	<p>Graphene-wrapped plasmonic nanoparticles and their perspectives in biosensing: surface enhanced Raman scattering Th. Kotsis¹, I. Fekas^{1,*}, K. Filintoglou¹, E. Pavlidou¹, J. Arvanitidis¹, D. Christofilos², G. Vourlias¹, and Patsalas¹ ¹Department of Physics, Aristotle University of Thessaloniki, Thessaloniki,Greece; ²Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki,Greece;</p>
P1-41	<p>Modification of structural and optical properties of various AlN/Ag multilayers by excimer laser annealing E. Dellis¹, C. Bazioti¹, N. Pliatsikas¹, N. Kalfagiannis², G. Vourlias^{1,*}, A. Siozios³, G.P. Dimitrakopoulos¹, D.C. Koutsogeorgis², P. Patsalas¹</p>

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P1-42	<p><i>The Life Long Life Program Organic Electronics and Applications – OREA Towards a European MSc degree in Organic Electronics & Applications</i> C.Petridis^{1,2}, T.D. Anthopoulos³, H. Snaith⁴, G.Lanzani⁵, G. Turnbull⁶, S. Choulis⁷, S. Sariciftci⁸, M.A. Loi⁹, C. Brabec¹⁰, E. Stratakis¹¹, N. Tessler¹², S. Ghaffari¹³, Chrystelle Dossou-Yovo¹⁴, M. Hauken¹⁵, M. Soderlund¹⁶ and E. Kymakis^{1,17} 1 Nanomaterials & Organic Electronics, Center of Materials Technology & Photonics, TEI of Crete, Greece 2 Department of Electronic Engineering, TEI of Crete, Greece, 3 Department of Physics, Imperial College London, UK 4 Department of Physics, University of Oxford, UK, 5 Department of Physics, Politecnico di Milano, Italy 6 School of Physics and Astronomy, University of St-Andrews, UK, 7Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Cyprus, 8 Linz Institute for Organic Solar Cells, Institute of Physical Chemistry, Johannes Kepler University, Linz, Austria, 9 Faculty of Mathematics and Natural Sciences, University of Groningen, Netherlands, 10 Materials for Electronics and Energy Technology, FAU, Germany, 11 IESLs, FORTH, Greece, 12 Organic Materials and Devices Lab, Electrical Engineering Department, Technion Israel Institute of Technology, Israel, 13 NanoForce Ltd, UK, 14 Ceradrop Ltd, France, 15 AIXTRON, Germany, 16 BENEQ, Finland, 17 Department of Electrical Engineering, TEI of Crete, Greece</p>
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Workshop 2– NANOMATERIALS, NANOFABRICATION, NANOENGINEERING & NANOCONSTRUCTION

<p>P2-1</p>	<p><i>Migration control of nano-barrier promoters incorporated biopolymer packaging</i> <i>S. Andrikaki^{1,2}, K.S. Andrikopoulos¹, A. Antonelou^{1,2}, S.N.Yannopoulos¹ Einar L. Hinrichsen³, G.A. Voyiatzis¹</i> <i>1FORTH/ICE-HT, P.O. Box 1414, GR-265 04, Rio-Patras, Greece</i> <i>2Department of Materials Science, Univ. of Patras, GR-26500, Rio-Patras, Greece</i> <i>3SINTEF Materials/Nanotechnology and Chemistry, Forskningsveien 1, N-0314 Oslo Norway</i></p>
<p>P2-2</p>	<p><i>Nano-structure Apatite Formed Biomimetically on Co-Cr alloy as a Drug Reservoir</i> <i>C. Chen^{1,2}, CX. Yao², I-S. Lee¹</i> <i>1Institute of Natural Sciences, Yonsei University, Seoul 120-749, Korea</i> <i>2Bio-X Center, College of Life Sciences, Zhejiang Sci-Tech University, China</i></p>
<p>P2-3</p>	<p><i>Polymeric nanostructures for cervical cancer treatment developed by laser-assisted processes</i> <i>I.A. Paun^{1,2}, M. Mihailescu¹, M. Zamfirescu², R.C.Popescu³, C.R. Luculescu², M. Dinescu², R. Radu⁴, O.T.Nedelcu⁵</i> <i>1 Politehnica University from Bucharest, Splaiul Independentei 313, Romania</i> <i>2 National Institute for Laser, Plasma and Radiation Physics, Magurele, Bucharest, Romania</i> <i>3Horia Hulubei National Institute for Physics and Nuclear Engineering IFIN-HH, Magurele, Bucharest, Romania</i> <i>4LOTUS Hospital, Ploiesti, Romania</i> <i>5 National Institute for Research and Development in Microtechnologies IMT Bucharest, Romania</i></p>
<p>P2-4</p>	<p><i>Synthesis, processing and characterisation of Ag-ZnO nanostructured materials and coatings for medical applications</i> <i>M. Lungu¹, I. Ion¹, D. Tălpeanu¹, F. Grigore¹, D. Pătroi¹, S. Mitrea¹, V. Marinescu¹, M.C. Chifiriuc², M. Popa², A. Sobetkii³, A.A. Sobetkii³, V. Tsakiris¹, M. Lucaci¹, A. Brătulescu¹, C.D. Cirstea¹</i> <i>1National Institute for Research and Development in Electrical Engineering ICPE-CA, Bucharest, Romania</i> <i>2University of Bucharest, Faculty of Biology, Microbiology Department, Bucharest, Romania</i> <i>3SC MGM STAR CONSTRUCT SRL, 7 Pâncota Street, 022773 Bucharest, Romania</i></p>
<p>P2-5</p>	<p><i>A nanomechano-stimuli responsive chip for in vitro neuronal cell study</i> <i>S. Xie¹, R. Luttge²</i> <i>1Mesoscale Chemical Systems, Mesa+ Institute for Nanotechnology, University of Twente,, The Netherlands</i> <i>2Department of Mechanical Engineering, Microsystems Group and ICMS Institute for Complex Molecular Systems, Eindhoven University of Technology, Eindhoven, The Netherlands</i></p>
<p>P2-6</p>	<p><i>Enhancement of the antibacterial properties of hydroxyapatite by Ag addition</i> <i>A.Vladescu¹, V. Braic¹, M. Badea², M. Braic¹, M. Moga², A. Kiss¹, E. Pozna²</i> <i>1National Institute for Optoelectronics, 409 Atomistilor St., Magurele, Romania</i> <i>2University Transilvania of Brasov, 29 Eroilor Blvd., Brasov, Romania</i></p>
<p>P2-7</p>	<p><i>Enhancement of mechanical, anticorrosive and biological properties of hydroxyapatite by TiO₂ addition</i> <i>C.M.Cotruț¹, M.Braic², I.Titorencu³, V.Braic², A. Kiss², I. Pană², A.Vlădescu²</i> <i>1University Politehnica of Bucharest, 313 Spl. Independentei, Bucharest, Romania</i> <i>2National Institute for Optoelectronics, 409 Atomistilor St., Magurele, Romania</i> <i>3Institute of Cellular Biology and Pathology Nicolae Simionescu of the Romanian Academy, Bucharest, Romania</i></p>
<p>P2-8</p>	<p><i>Oxynitride biocompatible coatings used in dental applications</i> <i>M. Dinu^{1,2}, M. Balaceanu², M. Braic², A. Vladescu², C.M.Cotruț¹, V. Braic²</i> <i>1University of Politehnica of Bucharest, 316 Spl. Independentei Str., Bucharest, Romania</i> <i>2National Institute for Optoelectronics, 409 Atomistilor Str., Magurele-Bucharest, Romania</i></p>
<p>P2-9</p>	<p><i>Investigation of Ti₂₅Nb₁₀Zr alloy for orthopedic applications</i> <i>A.I. Gherghilescu¹, C.M. Cotruț¹, I. Titorencu², I. Dan³, S. Ivănescu³, A. Vlădescu⁴, M. Braic⁴, V. Prună², V. Braic⁴</i> <i>1University of Politehnica of Bucharest, 316 Spl. Independentei, Bucharest, Romania</i> <i>2Institute of Cellular Biology and Pathology Nicolae Simionescu St., Bucharest, Romania</i> <i>3SC R&D Consulting and Services SRL, 21 Tudor Arghezi St., Bucharest, Romania</i> <i>4Institute for Optoelectronics, 409 Atomistilor St., Magurele, Romania</i></p>

P2-10	<p><i>Lightweight Epoxy Bio-composites with (Nano)Cellulose Reinforcing Agents</i> P. Xidas¹, P. Karakosta¹, C. Nitsos¹, Z. Terzopoulou¹, S. Nanaki¹, E. Roumeli², D. Patsi², K. Chrysafis², E. Papadopoulou³, E. Alexopoulou⁴, D. Bikiaris¹, K. Triantafyllidis^{1,*} ¹Department of Chemistry, AUTH, Greece ²Department of Physics, AUTH, Greece ³CHIMAR HELLAS SA, Sofouli 88, 55131 Thessaloniki, Greece, ⁴Center for Renewable Energy Sources and Saving – CRES, 19th Km Marathonos Avenue 19009 Pikermi Attikis, Athens, Greece.</p>
P2-11	<p><i>Research of novel nanostructured surface modification on minimally invasive electrosurgery devices in brain</i> K.-L. Ou^{1,2,3,4}, H.-J. Chiang^{2,4,5}, Han-Yi Cheng^{1,2,3} ¹ Graduate Institute of Biomedical Materials and Tissue Engineering, Taipei Medical University, Taipei 110, Taiwan ² Research Center for Biomedical Devices and Prototyping Production, Taipei Medical University, Taipei, Taiwan ³ Research Center for Biomedical Implants and Microsurgery Devices, Taipei Medical University, Taipei 110, Taiwan ⁴ Department of Dentistry, Taipei Medical University-Shuang Ho Hospital, New Taipei City 235, Taiwan ⁵ School of Dental Technology, Taipei Medical University, Taipei 110, Taiwan</p>
P2-12	<p><i>Surface properties of PEG thin films obtained by Pulsed Electron Deposition method</i> R. Jedrzejewski, J. Piwowarczyk, K. Kwiatkowski, J. Baranowska Institute of Materials Science and Engineering, West Pomeranian University of Technology 70-310 Szczecin, Al. Piastów 19, Poland</p>
P2-13	<p><i>Nano-based Methodology for the Evaluation of Biocide Release Kinetics</i> G. Mathioudakis^{1,2}, A. Soto Beobide², N. D. Koromilas¹, G. Ch. Lainioti¹, J. K. Kallitsis¹, G. A. Voyiatzis² ¹Department of Chemistry, UPATRAS, GR-265 00, Rio-Patras, Greece ²FORTH/ICE-HT, P.O. Box 1414, GR-265 04, Rio-Patras, Greece</p>
P2-15	<p><i>Quantitative measurement of interaction field at nanoscale by single nanowire switching using Magnetic Force Microscopy</i> M. R. Tabasum¹, A. Encinas², J. M. Martinez-Huerta¹, L. Piraux¹ and B. Nysten¹ Université Catholique de Louvain, Institute of Condensed Matter and Nanosciences, Louvain-la-Neuve, Belgium Instituto de Fisica, Universidad Autonoma de San Luis Potosi, Mexico</p>
P2-16	<p><i>Surface analysis of aluminum-silicon nanocomposite reinforced with carbon nanotubes</i> M.Ai-Azzawi (Department of Mechanical Techniques/Institute of Technology, Middle Technical University), Baghdad, Iraq</p>
P2-17	<p><i>Carbon nanotubes grown on molecular sieve coated porous ceramics</i> S. Mazumder¹, N. Sarkar¹, J.G. Park¹, W. Zhao², S. Kim² and I.J. Kim^{1*} ¹ Institute of Processing and Application of Inorganic Materials, (PAIM), Department of Materials Science and Engineering, Hanseo University, Korea. ²School of Material Science and Engineering, Yeungnam University, Gyeongsan City, Republic of Korea</p>
P2-18	<p><i>Electron microscopy study on the Influence of B and P implantation on Ni induced lateral crystallization in amorphous Si</i> N. Vouroutzis, J. Stoemenos, N. Frangis Department of Physics, AUTH, Thessaloniki, Greece G. Z. Radnóczy, E. Dodony, G. Battistig, B. Pécz Institute for Technical Physics and Matl. Sci., Research Centre for Natural Sciences, Hungarian Academy of Sciences, 1121 Budapest, Konkoly-Thege u. 29-33</p>
P2-19	<p><i>An electron crystallography study of the existing nano-phases in the thermoelectric composite PbTe +25%PbSnS₂</i> C. Ioannidou¹, N. Frangis¹, C.B. Lioutas¹, M.G. Kanatzidis² Solid State Physics Section, Department of Physics, AUTHGR-, Thessaloniki, Greece Dept. of Chemistry, Northwestern University, 2145 Sheridan Road, Evanston, IL 60208-3113, Illinois, USA</p>
P2-20	<p><i>Synthesis of core-shell SiO₂@TiO₂ mesoporous particles</i> B. Mazinani Malayer University, Malayer, Iran</p>
P2-21	<p><i>Inorganic/organic small molecular semiconductor self-assembly to functional core-shell nanoarchitectures for ultrasensitive chemiresistors to aniline vapor</i> H. Liu¹, H. Yang¹ CAS Key Laboratory of Organic Solids, Beijing National Laboratory for Molecular Sciences (BNLMS), Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100190, P. R. China</p>
P2-22	<p><i>High quality dispersion of MWCNTs within Al based matrix by using improved mechanical alloying process</i></p>

	<p>A.H.Javadi¹, S.Mirdamadi¹, S.Shakhesi² ¹Department of materials science and engineering, science and research branch, Islamic Azad University, Tehran, Iran ²Engineering Research Institute, Tehran, Iran</p>
P2-23	<p>Comparative Mössbauer Investigations of Chemically Synthesized vs. Mechanochemically Produced ZnFe₂O₄ Nanoparticles W.D. Vogel¹, A. J. Viescas¹, A. L. Tiano², C. S. Lewis², S. S. Wong^{2,3} and G. C. Papaefthymiou¹ ¹Department of Physics, Villanova University, Villanova, PA 19085, USA, ²Department of Chemistry, State University of New York Stony Brook, Stony Brook NY, 11794, USA ³Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory, Upton, NY 11973, USA</p>
P2-24	<p>Mechanism of formation and nanostructure of SiO₂ particles synthesized by multistage Stober-Fink-Bohn method V.M. Masalov, N.S. Sukhinina, E.A. Kudrenko, D.V. Matveev, A.A.Zhokhov, G.A. Emelchenko Institute of Solid State Physics, Russian Academy of Sciences, 142432 Chernogolovka, Moscow district, Russia</p>
P2-25	<p>Rapid Detection of Ions and Small Molecules Based on Noble Nanoparticles in Aqueous Solutions A. Wu^{1,2*} ¹Ningbo Institute of Materials Technology & Engineering (NIMTE), Chinese Academy of Sciences (CAS), Ningbo 315201, China. ²Faculty of Chemistry, University of Marburg, Marburg/Lahn, 35032, Germany</p>
P2-26	<p>Morphological tuning and optical properties of ZnO nanostructures grown by ultrasonic assistance in ionic liquids I. Kontopoulou^{1,2}, A. Angelopoulou^{1,2}, N. Bouropoulos^{1,2} ¹Department of Materials Science, UPATRAS, 26504 Rio, Patras, GREECE ²FORTH, Hellas-Institute of Chemical Engineering and High Temperature Chemical Processes - FORTH/ICE-HT, Patras, GREECE</p>
P2-27	<p>Surfactant-assisted multi-walled carbon nanotubes dispersion A. LAAROUSSI^{1,2,3}, N. REVERDY-BRUAS^{1,2,3}, D. CHAUSSY^{1,2,3}, N. BELGACEM^{1,2,3} ¹Univ. Grenoble Alpes, LGP2, F-38000 Grenoble, France ²CNRS, LGP2, F-38000 Grenoble, France ³Agefpi, LGP2, F-38000 Grenoble, France 461 rue de la Papeterie - CS 10065 - 38402 Saint-Martin d'Hères Cedex, France</p>
P2-28	<p>Modification of hBN Nano-particles' Surface with Octyltrimethoxysilane H. E. Çamurlu¹, B. Becer², ¹Mechanical Engineering Department, Akdeniz University, Antalya, Turkey ²Chemistry Department, Akdeniz University, Antalya, Turkey</p>
P2-29	<p>Functionalizing branched nanowires with metal nanoparticles for enhanced gas sensing H.W. Kim*, H.G. Na, Y.J. Kwon, S.Y. Kang Division of Materials Science and Engineering, Hanyang University, Seoul 133-791, Republic of Korea</p>
P2-30	<p>Influence of TiO₂-Nanoparticles in Melt-Spun Polyamide6-Filaments on the Properties Thermal conductivity and Tensile Strength K. Jaksik, G. Seide, T. Gries Institut für Textiltechnik der RWTH Aachen University, Aachen, Germany</p>
P2-31	<p>Rheological and Raman Study of the Dispersion State of Carbon Nanotubes in Epoxy resin: Effects of Functionalization and Ultrasound Processing K. Kouravelou¹, Th. Karachalios¹, H. Velichkova², E. Ivanov² D.Codegoni³, F.Somaini³, L.Zanotti³ and R. Kotsilkova² (1) Nanothinx S.A., Stadiou str., Platani, 26504 Rio – Patras, Greece (2) OLEM, Institute of Mechanics, Bulgarian Academy of Sciences, Acad. G. Bonchev St, Block 4, 1113 Sofia, Bulgaria (3) STMicroelectronics, via C. Olivetti 2, 2064 Agrate Brianza (MB), Italy</p>
P2-32	<p>Preparation of ZnO nanoparticles by thermal decomposition of organic precursors I. Kontopoulou^{1,2}, A. Angelopoulou^{1,2}, S. Baskoutas¹, N. Bouropoulos^{1,2} ¹Department of Materials Science, UPATRAS, 26504 Rio, Patras, GREECE ²FORTH, Hellas-Institute of Chemical Engineering and High Temperature Chemical Processes - FORTH/ICE-HT, Patras, GREECE</p>
P2-33	<p>Dosimetry of Ionizing Radiation Based on Photoelectron Emission from PbS Nanoparticles Yu. Dekhtyar¹, R. Reifeld², M. Romanova¹, T. Saraidarov², I. Surkova¹ ¹Riga Technical University, Institute of Biomedical Engineering and Nanotechnologies, Riga, Latvia; ² Department of Inorganic Chemistry, Hebrew University of Jerusalem, Jerusalem, Israel</p>

P2-34	<p>A Study on the mechanical properties of UV curable glass fiber composites according to vacuum pressure M.S. Lee¹, H.J. Shin¹, K.P. Kang², J.J. Lee², T.H. Kim², Y.S. Jang³, H.G. Kim⁴ ¹Department of Mechanical Engineering, Jeonju University, Republic of Korea ²Department of Carbon Fusion Engineering, Jeonju University, Republic of Korea ³Department of Composite Material, SEPOONG Polymer CO., LTD. Republic of Korea ⁴Department of Mechanical and Automotive Engineering, Jeonju University, Republic of Korea</p>
P2-35	<p>CNT /Graphene-Latex thin films as X-ray radiation detectors N. Bardi, I. Jurewicz and A.B. Dalton University of Surrey Guildford, Surrey, GU2 7XH, UK</p>
P2-36	<p>Laser/Plasma Assisted Synthesis of Gold-Iron Nanoparticles and Laser Desorption Ionisation for Generation of AumFen ($m = 1-35$; $n = 1-3$) Clusters R.M. Mawale¹, M.V. Ausekar¹, D. Pavliňák², O. Galmiz², P. Kubáček¹, J. Havel^{1,2,3}, ¹Department of Chemistry, Faculty of Science, Masaryk University, Kampus Bohunice, Brno, Czech Republic, ²Department of Physical Electronics, Faculty of Science, Masaryk University, Brno, Czech Republic ³CEPLANT, R&D Center for Low-cost Plasma and Nanotechnology Surface Modifications, Masaryk University, Brno, Czech Republic</p>
P2-37	<p>The effect of potential pulses in electrochemical synthesis on the crystallites size of Ni nanowires G. Tepes^{1*}, M.D. Vranceanu¹, A.A. Matei³, D. Bojin¹, R. Vidu² ¹University Politehnica Bucharest, Romania, ²Chemical Engineering and Materials Science, University of California, One Shields Avenue, Davis, CA 95616, USA ³Center of Microscopy-Microanalysis and Information Processing, University Politehnica Bucharest, Romania</p>
P2-38	<p>Sintering of transparent laser nanoceramics Y3Al5O12 from nanopowders with different granulometric composition I. Vorona, A. Doroshenko, S. Parkhomenko, D. Kosjanov, O. Vovk, A. Tolmachev STC "Institute for Single Crystals", Institute for Single Crystals, NAS of Ukraine, 60 Lenin Ave., 61001, Kharkov, Ukraine</p>
P2-39	<p>Forced Torsional Vibration Analysis of Carbon Nanotubes Using Nonlocal Elasticity M. Arda¹, M. Aydogdu² Trakya University Edirne, TURKEY 1mustafaarda@trakya.edu.tr</p>
P2-40	<p>Interfacial effects on electroluminescent properties in metal-oxide-based quantum dot light emitting device(QD-LED) H.-S. Min and J.-K. Lee ... Opto-electronics Materials and Devices Research Center, Korea Institute of Science and Technology Seoul 136-791, Korea</p>
P2-41	<p>Thermal state transition and migrations of the elemental excitations in artificial spin ice A. León Facultad de Ingeniería, Universidad Diego Portales Ejército 441, Santiago, Chile</p>
P2-42	<p>Lightweight and Highly Conductive Carbon Aerogel from Sugarcane with Adjustable Nanostructure and Excellent EMI Shielding Properties Y. Li¹, Y. Samad², K. Polychronopoulou², and K. Liao^{1,2} ¹Department of Aerospace Engineering, Khalifa University of Science, Technology, & Research, United Arab Emirates ²Department of Mechanical Engineering, Khalifa University of Science, Technology, & Research, United Arab Emirates</p>
P2-43	<p>Infrared spectroscopic evaluation of detergent powder performance doped with nano alumina M. Khanmohammadi, H. Rezaei, A. Bagheri Garmarudi Chemistry Department, Faculty of Science, Imam Khomeini International University, Qazvin, Iran</p>
P2-44	<p>Illumination Effect in the green synthesis of silver nanoparticles mediated by fig (Ficus carica) leaf extract B. Ulug¹, M.H. Turkdemir², A. Cicek³, A. Mete⁴ ¹Department of Physics, Fac. of Science, Akdeniz University, Antalya, Turkey ²Department of Chemistry, Fac. of Arts and Science, Uludag University, Bursa, Turkey ³Department of Physics, Fac. of Arts and Science, Mehmet Akif Ersoy University, Burdur, Turkey ⁴Department of Chemistry, Fac. of Arts and Science, Inonu University, Malatya, Turkey</p>
P2-45	<p>Assessing the zero valent iron nanoparticles (nZVI) as agents for the remediation of porous media polluted by chlorinated hydrocarbons K. Terzi^{1,2}, A. Sikinioti-Lock^{1,2}, K. Hajdu¹, C.A. Aggelopoulos¹, A. Skouras^{1,3}, P. Klepetsanis^{1,3}, S. Antimisiaris^{1,3}, C.D. Tsakiroglou¹ ¹FORTH Hellas-Institute of Chemical Engineering Sciences, Stadiou street, Platani, 26504 Patras, Greece ²Department of Chemical Engineering, UPATRAS, 26504 Patras, Greece</p>

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P2-46	Experimental Study of Surface Effects on Pool Boiling Heat Transfer of Alumina/Water Nanofluids F.Rajabzadeh Dareh, M. Haghshenasfard, M. Nasr Esfahani, H. Salimi Jazi Department of Chemical Engineering, Isfahan University of Technology, 8415683111, Isfahan, Iran
P2-47	Electrospun SnS nanofibers for thin film Solar Cells S.A.N.E. Elyamny 1Electronic Materials Research Department Advanced Technology and New Materials Research Institute, City of Scientific Research and Technological Applications (SRTA-City), Alexandria, Egypt 2Department of physics, Faculty of science, Alexandria University, Egypt
P2-48	NMR and MRI relaxometry studies of MFe ₂ O ₄ (where M: Co, Mn, Ni) magnetic colloidal superparticles stabilized by amphiphilic polyelectrolytes M. Menelaou ¹ , Z. Iatridi ² , I. Tsougos ³ , K. Vasiou ⁴ , Dendrinou-Samara ¹ , G. Bokias ^{2,*} 1 Department of Chemistry, AUTH, Thessaloniki, Greece 2 Department of Chemistry, UPATRAS, GR-26504 Patras, Greece 3 Department of Medical Physics, University Hospital of Larissa, University of Thessaly, Larisa, Greece 4 Department of Radiology, University Hospital of Larissa, University of Thessaly, Larisa, Greece
P2-49	Clusters as the primary nano-structure in the molten metal V.B. Vorontsov ¹ , V.K. Pershin ¹ , M.S. Udintseva ¹ 1Urals State University of Railway Transport, st. Kolmogorov, 66, Ekaterinburg, Sverdlovsk region, Russia, 620034
P2-50	Self-assembly of monolayers of colloidal platelets via computer simulation N. Pakalidou ¹ and C. Avendaño ¹ 1School of Chemical Engineering and Analytical Science, The University of Manchester, Manchester, UK
P2-51	Molecular dynamics methods for modelling blood flows at the micro/nano scale F. Sofos, T.E. Karakasidis, A.E. Giannakopoulos, A. Liakopoulos Department of Civil Engineering, University of Thessaly, 38834 Pedion Areos, Volos, GR
P2-52	Complex Oxide Nanoparticles and Thin Films by Chemical Solution Processing and Deposition I. Van Driessche, K. De Keukeleere, J. De Roo, H. Rijckaert, G. Pollefeyt, P. Lommens Dep. Of Inorganic and Physical Chemistry, Ghent University, Krijgslaan 281 – S3. 9000 Gent. Belgium.
P2-53	The structure and properties of the nanocomposite films Nb-Al-N V.I. Ivashenko ¹ , A.D. Pogrebnyak ² , P.L. Skriniski ¹ , V.N. Rogoz ² , S.V. Plotnikov ³ , N.K. Erdybaeva ³ , E.O. Tleukenov ³ D.K. Yeskermesov 1 Institute of Materials Science problems, Kryzhanovskaya Street. 3, 03680, Kiev-142, Ukraine 2 Sumy State University, Rimsky-Korsakov Street, 2, 40000, Sumy, Ukraine 3 D. Serikbayev East Kazakhstan State Technical University, Ust-Kamenogorsk, Kazakhstan
P2-54	Preparation of dewetting surface showing low contact angle hysteresis using organic silane molecules with different molecular configuration T. Ishizaki ¹ , K. Teshima ² 1Department of Materials Science and Engineering, Shibaura Inst. Technol., Tokyo 135-8548, Japan, 2Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University, Japan
P2-55	Gas Induced Reduction Synthesis of Bi _{0.5} Sb _{1.5} Te ₃ Nanostructures and Structure Evolvement Mechanism X. Wang, B.J. An, K.F. Cai (School of Materials Science & Engineering, Tongji University, 4800 Caoan Road, Shanghai, China)
P2-56	Functional multicomponent hard coatings for tribological applications M. Braic, M. Balaceanu, A. Vladescu, M. Dinu, V. Braic National Institute for Optoelectronics 409 Atomistilor St., Magurele, Romania
P2-57	Thin film transparent conducting oxide based memristors A. Poghosyan, R. Hovsepyan, E. Elbakyan Institute for Physical Research, Ashtarak, Armenia
P2-58	The combined effect of mechanical and chemical stimuli on the tribology of Cr-based multilayers obtained by cathodic arc technique C.M. Cotruț ¹ , M. Dinu ^{1,2} , M.D. Vrânceanu ¹ , M. Târcolea ¹ , A.I. Gherghilescu ¹

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P2-59	Hot-wire metal oxides: Investigation of their properties and application in chemical sensing G. Papadimitropoulos ¹ , D. Davazoglou ¹ NCSR Demokritos, Institute of Nanoscience and Nanotechnology, Terma Patriarchou Grigoriou, Aghia Paraskevi, Greece
P2-60	Formation and UV Laser Nanopatterning of CoPt and MnAl Layers for Dot Patterned Magnetic Recording Media G. Sáfrán ¹ , J. Szívós Thin Films Physics Department, Institute of Technical Physics and Materials Science, Centre for Energy Research, HASH-1121 Budapest Konkoly-Thege M. út 29-33, Hungary
P2-61	A Study on the Impact properties and Nondestructive inspection according to laminated method of the EVA and CFRP H.J. Shin ¹ , M.S. Lee ¹ , A. Trgirumubano ¹ , H.K. Yoon ² , K.P. Kang ² , J.J. Lee ² , Mey Angseyla ³ , Lee Ku Kwac ⁴ 1. Department of Mechanical Engineering, Jeonju University, Wansan-gu, Jeonju, Republic of Korea 2. Department of Carbon Fusion Engineering, Jeonju University, Wansan-gu, Jeonju, Republic of Korea 3. Department of Mechanical and Automotive Engineering, Jeonju University, Wansan-gu, Jeonju, Republic of Korea 4. Department of Manufacturing Technology and Design Engineering, Jeonju University, Wansan-gu, Jeonju, Republic of Korea
P2-62	Metal-insulator transition in CrN thin films prepared by reactive magnetron sputtering I. Batko ¹ , M. Batková ¹ , F. Lofaj ² , V. Kavečanský ¹ 1Slovak Academy of Sciences, Institute of Experimental Physics, Watsonova 47, 04001 Kosice, Slovakia 2Slovak Academy of Sciences, Institute of Materials Research, Watsonova 47, 04001 Kosice, Slovakia
P2-63	Structural and Electrical Parameters of Nanostructure Mg doped ZnO Films S. Ilican, Y. Caglar, M. Caglar Department of Physics, Anadolu University 26470 Turkey
P2-64	Memristive-like behavior of Nb/NbOx/Nb planar structures prepared by local anodic oxidation M. Batkova, I. Batko Slovak Academy of Sciences, Institute of Experimental Physics, Watsonova 47, 04001 Kosice, Slovakia
P2-65	Corrosion resistance of anion-exchangeable Mg-Al layered double hydroxide nanocontainer-containing magnesium hydroxide films formed directly on magnesium alloy by steam coating T. Ishizaki ¹ , N. Kamiyama, K. Teshima ² 1Department of Materials Science and Engineering, Shibaura Inst. Technol., Tokyo 135-8548, Japan, 2Department of Environmental Science and Technology, Faculty of Engineering, Shinshu University, Japan
P2-66	The structure changes in steel samples after hot plasma treatment by repeated pulses A. Zhukeshov, A. Gabdullina, A. Amrenova, M. Mukhamedryskzy, Zh. Moldabekov, S. Beysenbaev Physics and technology faculty, Kazakh national university named after al-Farabi al-Farabi av. 71, Almaty, Kazakhstan
P2-67	Nanopatterning of Si by Metal-Assisted Chemical Etching for Dye-Sensitized Solar Cell Application M. Lee, J. Lee, H. Min, Y. Oh, H. Oh, M. Seo Department of Materials Science and Engineering, Yonsei University 134 Shinchon-dong, Seoul, Korea
P2-68	Optimized fabrication of ZSM-5 zeolite nano sheets for catalytic applications A. Bagheri Garmarudi, F. Farsi, M. Khanmohammadi Chemistry Department, Faculty of Science, Imam Khomeini International University, Qazvin, Iran
P2-69	Multilayer heterostructures of magnetic Heusler and binary compounds from first principles C. Garoufalidis and I. Galanakis Department of Materials Science, UPATRAS, GREECE
P2-70	Self-forming diffusion barrier layer in SiO ₂ /CuMn interface F. Misják ¹ , H.K. Nagy ¹ , J. Yamasaki ² , N. Tanaka ³ , G. Radnóczy ¹ 1Institute of Technical Physics and Materials Science, Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary 2Research Center for Ultra-High Voltage Electron Microscopy, Osaka University, Japan 3EcoTopia Science Institute, Nagoya University, Nagoya 464-8603, Japan

P2-71	<i>Cu₂ZnSnSe₄ Thin Film Preparation via Metal-Ethanolamine Complex Compound Precursor</i> Kyoo Ho Kim*, Ersan Y. Muslih Yeungnam University (School of Material Science and Engineering, Yeungnam University) 214-1 Daedong, Gyeongsan 712-749, South Korea
P2-72	<i>Growth and characterization of electrodeposited CuGa_{0.3}In_{0.7}Se₂ Thin films on copper back contact</i> C. Adel*, B.M. Fethi, B. Brahim Laboratoire photovoltaïque, centre des Recherches et des Technologies de l'Énergie Technopole Borj Cedria B.P N°95, Hammam Lif 2050- Tunisie
P2-73	<i>Synthesis and characterization of osseconductive coatings deposited on Ti substrate</i> D.M. Vrânceanu ¹ , A. Berbecaru ¹ , G. Tepeș ¹ , A.I. Gherghilescu ¹ , A. Predescu ¹ , C.M. Coțruț ¹ ¹ University Politehnica of Bucharest, Bucharest, Romania
P2-74	<i>Electrical Properties of amorphous Indium-Tin-Zinc-Oxide Thin Film Transistors for Post-Annealing Temperatures</i> S. Park ¹ , K. Park ² , and J.-Y. Kwon ^{1,2*} ¹ School of Integrated Technology, Yonsei University, Incheon, 406-840, Republic of Korea ² Yonsei Institute of Convergence Technology, Yonsei University, Incheon, 406-840, Republic of Korea
P2-75	<i>Controllably Wetted Rough Polymeric Surfaces exhibiting photocatalytic activity</i> M. A. Frysali, ^{1,2} L. Papoutsakis, ¹ G. Kenanakis, ¹ E. Stratakis, ¹ G. Mountrichas, ³ S. Pispas, ³ and S.H. Anastasiadis, ^{1,2} ¹ IESL, FORTH-Hellas, 71110 Heraklion, Crete, Greece ² Department of Chemistry, University of Crete, 71003 Heraklion Crete, Greece ³ Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, 11635 Athens, Greece
P2-76	<i>Nanomorphology control of polymer blends with biocidal groups</i> D. Druvari, N.D. Koromilas, G.Ch. Lainioti, G. Bokias, J.K. Kallitsis Department of Chemistry, UPATRAS, GR-26504 Patras, Greece
P2-77	<i>Ionic Strength and pH responsive polyelectrolytes</i> I. Chiotelis ^{1*} , S. Pispas ² , C. Toprakcioglu ¹ . ¹ Physics Department, UPATRAS, 26500, Greece. ² Theoretical & Physical Chemistry Institute, National Hellenic Research Foundation, , Greece.
P2-78	<i>Magnetic hyperthermia efficiency of supercolloidal nanostructures of Co and Mn ferrites by multi stimuli-responsive amphiphilic copolymers</i> Z. Iatridi ¹ , K. Vamvakidis ² , A. Makridis ² , A. Angelakeris ³ , O. Kalogirou ³ , C. Dendrinou-Samara ² , G. Bokias ¹ ¹ Department of Chemistry, UPATRAS, GR-26504 Patras, Greece ² Department of Chemistry, AUTH, Thessaloniki, Greece ³ Department of Physics, AUTH, Thessaloniki, Greece
P2-79	<i>Finite element analysis on the effects of polymer deformations on the conductivity of nano-composite based polymeric films</i> V. Tsouti ¹ , D. Spyrou ² , D. Tsoukalas ² , S. Chatzandroulis ¹ ¹ Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Greece ² Department of Applied Sciences, NTUA, Zografou 15780, Greece
P2-80	<i>Development of polymeric membranes to separate gas mixtures</i> K. Lebotesis ^{1,2} , G.Ch. Lainioti ^{1,2} , V. Deimede ¹ , T. Ioannides ² , J. K. Kallitsis ^{1,2} ¹ Department of Chemistry, UPATRAS, GR-26504 Patras, Greece ² FORTH-Hellas (FORTH) / Institute of Chemical Engineering Sciences (ICE-HT), Patras, Greece
P2-81	<i>Electroconductivity Thin Film Studies of acrylonitrile in Polystyrene</i> M.M. Radhi College of health and medical technology-Baghdad Middle technical university-Iraq
P2-82	<i>Low-cost, high performance transparent conductive films fabricated using the inkjet and spray deposition methods</i> M. Vasileiadis ¹ , I. Deligkiozi ¹ , K. Hrissagis ² ¹ Center for Technology Research & Innovation (CETRI), K. Paparigopoulou 15, Limassol 3106, Cyprus

	2Centre for Research & Technology Hellas (CERTH) - Institute for Research & Technology, Thessaly (IRETETH), Karyes 42100, Trikala, Greece
P2-83	<i>Collapse transitions in thermosensitive multi-block copolymers: A Monte Carlo study</i> A. N. Rissanou,1 D. S. Tzeli, ,2 S. H Anastasiadis3,4 and I. A. Bitsanis4 1 Department of Mathematics and Applied Mathematics, University of Crete, Heraklion, Crete, Greece 2 Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece 3 IESL, FORTH, Heraklion, Crete, Greece 4 Department of Chemistry, University of Crete, Heraklion, Crete, Greece
P2-84	<i>Well-defined Quaternized PDMAEMA Brushes as Biocidal Surfaces</i> E. Koufakis,1,2 T. Manouras,1 S. H. Anastasiadis1,3 and M. Vamvakaki1,2 1 IESL, FORTH, Heraklion, Crete, Greece 2 Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece 3 Department of Chemistry, University of Crete, Heraklion, Crete, Greece
P2-85	<i>Quaternization induced microphase separation in biocidal block copolymer thin films</i> T. Manouras,1 K. Chrissopoulou,1 E. Koufakis,1,2 S. H. Anastasiadis1,3 and M. Vamvakaki1,2 1 IESL, FORTH, Heraklion, Crete, Greece 2 Department of Materials Science and Technology, University of Crete, Heraklion, Crete, Greece 3 Department of Chemistry, University of Crete, Heraklion, Crete, Greece
P2-86	<i>Directly Deposited Si NP/CNT/PVA Nanofiber Anodes for Li-ion Battery Application</i> G. Shoorideh1, Y. Zhmayev1, Y-L. Joo1 1School of Chemical and Biomolecular Engineering, Cornell University, Ithaca, NY 14853 USA
P2-87	<i>Nanomechanical Properties of Superhard Nanocomposite Protective Coatings Developed by HiPIMS and CFUBMS</i> S. Kassavetis, A. Spiliotis, S. Karamanidis and S. Logothetidis, Lab of Thin Films - Nanosystems & Nanometrology (LTFN), Physics Department, AUTH, Thessaloniki, Greece
P2-88	<i>TiO2-C Nanofibers with Nano-Sn Particles for Lithium Ion Batteries</i> X.Y. Li, Y. M. Chen and L. M. Zhou Department of Mechanical Engineering, The Hong Kong Polytechnic University, Hong Kong, China
P2-89	<i>Effects of Temperature on Optical and Dielectric Properties of CdSe and CdSe/ZnS Nanocrystals</i> M. R. Karima,,Mesut Balabanb, Hadi Sedaghat Pisheic and Hilmi Ünlüa (a) İstanbul Technical University, Faculty of Science and Letters, Department of Physics, , Turkey (c) Istanbul Technical University, Computational Scienc and Engineering Programme, Informatic Institute , Turkey (c) Istanbul Technical University, Nanoscience and Nanoengineering Programme, , Turkey
P2-90	<i>A Study of the Mechanism of the Assembly of Lipid Bilayers on top of Polyelectrolyte Multilayer Supports</i> E. Diamanti1, D. Gregurec1, S. Moya1 1 Biosurfaces, CICbiomaGUNE, Paseo Miramón 182 C, San Sebastian, Spain
P2-91	<i>A novel Mo-W interlayer approach for CVD diamond deposition on steel</i> V. Kunderát1, X. Zhang2, K. Cooke2, H. Sun2, J. Sullivan1, H. Ye1, * 1School of Engineering & Applied Science, Aston University, United Kingdom 2Miba Coating Group: Teer Coatings Ltd, United Kingdom
P2-92	<i>Amino-functionalization of carbon nanotubes under high pressure</i> I. Pelech1, A. Jędrzejewska1, A. Kaczmarek1, R. Pelech2, 1Institute of Chemical and Environment Engineering, West Pomeranian University of Technology, Szczecin, Poland 2Institute of Organic Chemical Technology, West Pomeranian University of Technology, Szczecin, Poland
P2-93	<i>Biohybrid printing</i> V.Serbezov 1,2, G.Vassilev2, V.Georgiev1, Sv.Serbezov1 1 Nanotechplasma Ltd., Plovdiv,Bulgaria, 2 Nanotechplasma SARL, Geneva
P2-94	<i>Chromium oxynitride thin films as adhesion interlayers between metal and ceramic for dental restorations</i>

	<p>M. Dinu¹, M. Târcolea¹, M.G. Panaite², M.D. Vrânceanu¹ ¹University Politehnica of Bucharest, 313 Independetei Street, 060042, Bucharest, Romania, ²S.C. DipaDent Group S.R.L., 47-49 Sf. Elefterie Street, 50524, Bucharest, Romania</p>
P2-95	<p>Construction of a database on the in vitro toxicity of amorphous silica nanoparticles from peer reviewed papers H Vriens¹, D. Mertens², T. Wittenberger², P. H.M. Hoet¹ ¹Centre for Environment and Health, Department of Public Health and Primary Care, Leuven, Belgium, ²Genedata AG, Basel, Switzerland</p>
P2-96	<p>Dressed states of polaritons in microcavities - nanoengineering of quasiparticles B. Piętko¹, D. Stephan², M. Teich², N. Bobrovska³, S. Winnerl², A. Pashkin², H. Schneider², F. Morier-Genoud⁴, B. Deveaud⁴, M. Helm², M. Matuszewski³, J. Szczytko¹ ¹University of Warsaw, Faculty of Physics, Institute of Experimental Physics, Poland ²Institute of Ion Beam Physics and Materials Research, Helmholtz-Zentrum Dresden-Rossendorf, Dresden ³The Institute of Physics, Polish Academy of Sciences, Warsaw, Poland ⁴Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland</p>
P2-97	<p>Electrodeposition of CdSe nanomatrix for hybrid solar cells S. Bereznev¹, J. Gurevits¹, J. Kois¹, E. Mellikov¹ Department of Materials Science, Tallinn University of Technology, Ehitajate tee 5, 19086 Tallinn, Estonia</p>
P2-98	<p>Electrospun Functionalized Polycaprolactone Nanofibers Scaffold for Skin Regeneration E. Moyers¹; C.L. Vargas², F. Jiménez²; P.E. García¹; C. Martínez¹ ¹ Institute of Engineering and Technology, Autonomous University of The City of Juarez ² Institute of Biomedical Science, Autonomous University of the City of Juarez, Cd. Juárez, México</p>
P2-99	<p>EU-fund-raising support as partner in the Enterprise Europe Network Bavaria Partner search for EU consortia P. Panagiotou¹, ¹ Bavarian Research Alliance (non-profit Company) Prinzregentenstr. 52, D-80538 München, Germany</p>
P2-100	<p>Harvesting solar energy with multifunctional glass-polymer windows N. Riemann¹, P. Panagiotou¹, Bavarian Research Alliance (non-profit Company), München, Germany</p>
P2-101	<p>Glass Coatings Containing Carbothermally Produced Hexagonal Boron Nitride Nanoparticles H. E. Çamurlu¹, B. Becer², A. Gençer² ¹Department of Mechanical Engineering, Akdeniz University, Antalya, Turkey ²Department of Chemistry, Akdeniz University, Antalya, Turkey</p>
P2-102	<p>Kinetic and Thermodynamic Peculiarity of Structure and Functional Transformations of Conducting Polythiophenes in Solutions and Thin Films I.N. Ivanov¹, J.Zhu¹, M. Stanford^{1,2}, N. Herath³, KL. Honmg¹, V. Lauter³, C. Do³, R. Kumar¹, B. Sumpter¹ ¹Center for Nanophase Materials Sciences (Oak Ridge National Laboratory), USA ² Department of Material Science and Engineering (University of Tennessee Knoxville), Knoxville USA ³Spallation Neutron Source (Oak Ridge National Laboratory) 1 Bethel Valley, Oak Ridge USA</p>
P2-103	<p>Magnetic and structural properties of MBE grown wurtzite (Ga,Mn)As shells in a radial quantum well nanowire heterostructures A. Śiuśys¹, J. Sadowski^{1,2}, S. Kret¹, T. Wojciechowski¹, T. Story¹, and M. Sawicki¹ ¹Institute of Physics, Polish Academy of Sciences, Warszawa, Poland ²MAX-IV Laboratory, Lund University, Sweden</p>
P2-104	<p>Microstructural features of the La_{1-x}CaxMO_{3-δ} (M = Mn, Fe) solid solutions prepared via Pechini route in CH₄ oxidation reaction E. Gerasimov^{1,2}, S. Tsybulya^{1,2}, L. Isupova¹, ... ¹Boreskov Institute of Catalysis, pr. Lavrentieva 5, Novosibirsk, Russia ² Novosibirsk State University, Str. Pirogova 2, Novosibirsk, Russia</p>
P2-105	<p>Nano composites synthesis and application for heavy metals removal I. Kulakauskaitė¹, G. Lujanienė², D. Valiulis³ Center for physical sciences and technology, Vilnius, Lithuania</p>
P2-106	<p>Nanobubbles formation on desorption process</p>

	<p>A. Ch. Mitropoulos¹, K. L. Stefanopoulos², E. P. Favvas^{1,2}, N. C. Kokkinos¹, E. Vansant^{1,3}, N. P. Hankins⁴, I. Sarafis¹ ¹Hephaestus Advanced Research Laboratory, Department of Petroleum and Mechanical Engineering, Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece ²Membranes & Materials for Environmental Separations Laboratory, Institute of Nanoscience and Nanotechnology, NCSR "Demokritos", Greece ³Department of Chemistry, Laboratory of Adsorption and Catalysis, University of Antwerp, Wilrijk, Belgium ⁴Department of Engineering Science, The University of Oxford, UK</p>
P2-107	<p>Nanodiamond coated fiber Bragg grating sensors H. Ye¹, J.L. Pinto² and C. Tang³ ¹ School of Engineering and Applied Science, Aston University, Birmingham, United Kingdom ² Department of Physics, University of Aveiro, 3810-193 Aveiro, Portugal ³ Department of Physics, Changshu Institute of Technology, Changshu, Jiangsu Province, P.R. China</p>
P2-108	<p>Nanodiamond coated fiber Bragg grating sensors H. Ye¹, J.L. Pinto² and C. Tang³ ¹ School of Engineering and Applied Science, Aston University, Birmingham, United Kingdom ² Department of Physics, University of Aveiro, 3810-193 Aveiro, Portugal ³ Department of Physics, Changshu Institute of Technology, Changshu, Jiangsu Province, P.R. China</p>
P2-109	<p>Nucleation Rate Surface for the Binary Systems with Eutectic Points. O.O. Petrova-Bogdanova^{1,2} and M.P. Anisimov^{1,2} ¹Technological Design Institute of Scientific Instrument Engineering SB RAS ²Novosibirsk State Technical University</p>
P2-110	<p>The Necessary and Sufficient Conditions for a Semiempirical Design of the Nucleation Rate Surfaces. O.O. Petrova-Bogdanova and M.P. Anisimov Technological Design Institute of Scientific Instrument Engineering SB RAS Novosibirsk State Technical University</p>
P2-111	<p>The Nucleation Rate Surface for Cases of the Phase Diagrams with Eutectic and Peritectic Points. O.O. Petrova-Bogdanova and M. P. Anisimov Technological Design Institute of Scientific Instrument Engineering SB RAS Novosibirsk State Technical University</p>
P2-112	<p>Photochemical synthesis of Ag nanoparticles by reduction of Ag⁺ ions with citrates K. Kolaťaj, J. Krajczewski, A. Kudelski Department of Chemistry, University of Warsaw, Poland</p>
P2-113	<p>Porous Si/ZnO nanostructures by electrochemical methods: microstructure and photoluminescence S. Dellis¹, N. Pliatsikas¹, N. Kalfagiannis², G. Voulias¹, D.C. Koutsogeorgis², P. Patsalas¹ ¹Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, GR-54124, Greece; ²School of Science and Technology, Nottingham Trent University, Nottingham, NG11 8NS, United Kingdom</p>
P2-115	<p>Preparation of silica hollow spheres as the delivery system for fragrance J. Hu¹, L. Liu¹, W. Deng¹, L. Wu² ¹School of Perfume and Aroma Technology, Shanghai Institute of Technology P. R. China; ²Department of Materials Science, Fudan University, Shanghai, P. R. China</p>
P2-116	<p>Pulsed Laser Fabrication of Ag, Si:C thin films for antimicrobial coatings of implants N. Mihailescu¹, G. Socol¹, C. Hapenciuc¹, I. Negut¹, C. Ristoscu¹, Ion N. Mihailescu¹, G. Stan², C. Chifiriuc³ ¹National Institute for Lasers, Plasma and Radiation Physics, Magurele, Romania ²National Institute of Materials Physics, Magurele, Romania, ³Department of Microbiology, Faculty of Biology, Bucharest, Romania</p>
P2-117	<p>Quantitative scanning probe microscopy techniques for heat transfer management in nanomaterials and nanodevices: first advancements S. Gomès^{1,2} and QuantiHeat consortium² ¹Université de Lyon, CNRS, INSA de Lyon, CETHIL, UMR5008, F-69621, Villeurbanne, France ² University of Lancaster, Kelvin NanoTechnology, Laboratoire National de Métrologie et d'Essais, France ; Glasgow University, UK; VTT Technical Research Centre of Finland Ltd, Finland; National Physical Laboratory, UK; THALES R&T, France; Czech Metrology Institute, Czech Republic ; PICOSUN Oy, Finland ; Ecole Polytechnique Fédérale de Lausanne, Switzerland ; Fundació Privada Institut Català de Nanotecnologia, Spain ; Université de Reims Champagne-Ardenne, France ; Ecole Supérieure de Physique et de Chimie Industrielles de la ville de Paris, France ; Micro Resist Technology Gesellschaft für Chemische Materialien spezieller Photoresistsysteme mbH, Germany ; Ecole Nationale Supérieure de Mécanique</p>

	<i>et des Microtechniques, France ; Berliner NANOTEST und Design GmbH, Germany ; CONPART As, Norway ; NT-MDT Europe B.V., Netherlands ; Université Paris Descartes, France.</i>
P2-118	<i>Safe-by-design - how computational methods can improve the efficiency of product designing and manufacturing? A. Gajewicz¹, A. Mikolajczyk¹, A. Cybula², A. Zaleska², T. Puzyn¹ ¹ Laboratory of Environmental Chemometrics, Faculty of Chemistry, University of Gdansk, Poland ² Department of Chemical Technology, Gdansk University of Technology, Poland</i>
P2-119	<i>Solid Hydroxide Eutectics as Self-Organized Nanostructured Electrolytes for Small-Sized and Low- Power 300 K Range Y. Baikov, Ioffe Institute, St-Petersburg, Russia</i>
P2-120	<i>Separation of Nano CaCO₃ by Fluidized Bed Filter E. Ozdemir, O.G.YORUK, and S.K. Ozdemir Department of Chemical Engineering, Izmir Institute of Technology, Urla, Izmir, 35430-TURKEY</i>
P2-121	<i>Specular and Diffuse Angular Characterisation of Plasmonic Nanoparticle Templates J.L. Spear¹, D.J. Fairhurst², N. Kalfagiannis³, C.W.M. Castleton⁴, C.V. Brown⁵, D.C. Koutsogeorgis⁶ School of Science and Technology, Nottingham Trent University Nottingham, NG11 8NS, UK</i>
P2-122	<i>SWCNT electrodes printed by gravure on PET flexible foils and optimisation of the coating parameters L. Tzounis, C. Polizoidis, C. Kapnopoulos, S. Logothetidis Lab for Thin Films Nanosystems and Nanometrology, Physics Department, AUTH, Thessaloniki, Greece</i>
P2-123	<i>Synthesis and characterization of bifunctional nanocrystalline photocatalysts for UV and visible photocatalysis R. Comparelli, ¹F. Petronella, ¹A. Truppi, ^{1,2}E. Fanizza, ^{1,2}T. Placido, ^{1,2}M. Striccoli, ¹A. Agostiano, ^{1,2}M. L. Curri ¹ CNR-IPCF, Istituto per i Processi Chimici e Fisici, U.O.S. Bari, c/o Dip. Chimica Via Orabona 4 70126 - Bari, Italy ² Università degli Studi di Bari – Dip. Di Chimica, Via Orabona 4, 70126 – Bari, Italy</i>
P2-124	<i>Synthesis and characterization of CuFe and CuFeO₂ nanoparticles with antimicrobial properties C. Gkanatsiou¹, O. Antonoglou¹, K. Giannousi¹, U. Menkissoglu-Spiroudi² and C. Dendrinou-Samara¹ ¹ Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece, ² School of Agriculture, Laboratory of Pesticide Science, AUTH, Thessaloniki, Greece</i>
P2-125	<i>Synthesis and characterization of Mg doped ZnO film by microwave assisted hydrothermal method Y. Caglar¹, S. Ilcan¹, K. Gorgun², M. Caglar¹ ¹ Physics Department, Anadolu University, Eskisehir, Turkey, ² Chemistry Department, Eskisehir Osmangazi University, Eskisehir, Turkey</i>
P2-126	<i>Towards large-scale and cold fabrication of CNTs based solar thermal harvesting systems I.Fekas ¹, A. Siozios ², K. Filintoglou ¹, J. Arvanitidis ¹, S. Kassavetis ¹, E. Pavlidou ¹, K.M. Paraskevopoulos ¹, G. Vourlias ¹, , P. Patsalas ¹ ¹ Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, GR-54124, Greece. ² Department of Materials Science and Engineering, University of Ioannina, GR-45110 Ioannina, Greece.</i>
P2-127	<i>Plasma treatment effect on the surface properties of cement pastes C. Tzileroglou^{1,2}, S. Kassavetis¹, M. Stefanidou², F. Kesikidou², A. Papamichail¹, C. Gravalidis¹, S. Logothetidis¹ ¹Laboratory for Thin Films Nanosystems and Nanometrology, Physics Department AUTH ²Laboratory of Building Materials, Civil Engineering Department AUTH</i>
P2-128	<i>The Potential of Bicomponent Nanocrystal Lignocellulose Thin Films Preparation from Agricultural and Forest Residues. C. Gallis^{1*}, L. Csoka², D. Koutsianitis¹, K. Giagli¹, K. Halasz², D. Tsalagkas², O. Kolonics². ¹.Forest Research Institute, GR-57 006, Vassilika, Thessaloniki, Greece. ². Institute of Wood Based Products and Technologies, Univ. of West Hungary, Sopron, Hungary.</i>

Workshop 3 – Nanomedicine

P3-1	<p><i>Targeting PLGA nanoparticles containing leishmanial antigen to distinct dendritic cells surface receptors induce protection against murine model of visceral leishmaniasis</i> M. Agallou¹, M. Margaroni¹, E. Athanasiou^{1,2}, K. Kontonikola^{2,3}, K. Karidi², O. Kammona², C. Kiparissides^{2,3}, E. Karagouni¹ ¹ Laboratory of Cellular Immunology, Department of Microbiology, Hellenic Pasteur Institute, Athens, Greece ² Department of Chemical Engineering, AUTH, Thessaloniki, Greece ³ CPERI, CRT Hellas, Thessaloniki, Greece</p>
P3-2	<p><i>Furan-modified nucleic acid probes and singlet oxygen: a crosslinking story</i> E.M. Llamas¹, B. Korsak², J. Tomé², T. Torres³, A. Madder¹ ¹ Organic and Biomolecular Chemistry Research group, Ghent University, Krijgslaan 281, 9000 Ghent, Belgium; ² Department of Chemistry, University of Aveiro, Portugal ³ Department of Organic Chemistry, Faculty of Science, Universidad Autónoma de Madrid, Madrid, Spain</p>
P3-3	<p><i>Synthesis and characterization of magnetic drug delivery systems: Ferrogels.</i> L.R. Contreras Morales^{1,*}, K. Baca Ramos¹, C.A. Martínez Pérez¹, C. Chapa González¹ and P.E. García Casillas¹ ¹ Instituto de Ingeniería y Tecnología. Universidad Autónoma de Ciudad Juárez. Ave. del Charro #610 norte. Col. Partido Romero, C.P. 32320. Cd. Juárez, Chihuahua, México.</p>
P3-4	<p><i>Biological effects of SPION on human endothelial cells in vitro and ex vivo</i> J. Matuszak, E. Schreiber, M. Pöttler, S. Lyer, C. Alexiou and I. Cicha Section of Experimental Oncology and Nanomedicine (SEON), ENT-Department, University Hospital Erlangen, Erlangen, Germany,</p>
P3-5	<p><i>Ferrimagnetic Nano-Particles for Cancer Therapy</i> H. Schmid Fraunhofer-Institute for Chemical Technology (ICT) Joseph-von-Fraunhofer-Str. 7, 76327 Pfinztal, Germany</p>
P3-6	<p><i>Magnetic manipulation of superparamagnetic nanoparticles in a microfluidic system for drug delivery applications</i> I. Theodorakos¹, L. Agiotis¹, S. Samothrakitis¹, S. Papazoglou¹, A. Klinakis², Y.S. Raptis¹, I. Zergioti¹ ¹NTUA, Physics Department, Iroon Polytehneiou 9, 15780 Zografou, Athens, Greece ²Biomedical Research Foundation of Athens, Greece</p>
P3-7	<p><i>A Feasibility Study on the Utilisation of Three-Dimensional Printer Modelling in Orthopaedics and its Advantages</i> S.D. Psoma, D. Varitimidis, A. Tourlidakis University of Western Macedonia, School of Engineering, Kozani 50 100, Greece</p>
P3-8	<p><i>Design of biodegradable polymeric drug delivery systems made of electrospun nanofibers for sustained release of anti-inflammatory pharmaceutical agents</i> A. Repanas¹, A. Papamichail², G. Nomikos², V. Karagkiozaki², B. Glasmacher¹, S. Logothetidis² ¹Institute for Multiphase Processes, Department of Mechanical Engineering, Leibniz University Hannover, Germany ²Nanomedicine Group, Department of Physics, Lab for "Thin Films –Nanosystems & Nanometrology", AUTH, Thessaloniki, Greece</p>
P3-9	<p><i>Biotinylated magnetic nanostructures with potential applications for breast cancer chemotherapy</i> V. Balan, M. Butnaru, L. Verestiuc Faculty of Medical Bioengineering, Gr. T. Popa University of Medicine and Pharmacy, Iasi, Romania</p>
P3-10	<p><i>SOD and Catalase immobilization onto superparamagnetic nanoparticles for cardiovascular applications</i> L. Lungoci, V.Balan, M. Butnaru, O.Bredetean L.Verestiuc Faculty of Medical Bioengineering, Gr. T. Popa University of Medicine and Pharmacy, Iasi, Romania</p>
P3-11	<p><i>Nanoinformatics: a forward step in nanomedicine</i> Prof. Stelios Anestis¹ and E. Prof. Dr Athan Labropoulos²</p>
P3-12	<p><i>QSAR model for cytotoxicity of silica nanoparticles on human embryonic kidney cells</i> S. Manganelli¹, C. Leone², E. Benfenati³ ^{1,2,3} IRCSS-Istituto di Ricerche Farmacologiche Mario Negri, Via Giuseppe La Masa, 19, 20156 Milan, Italy</p>
P3-13	<p><i>Core-shell magnetic nano-composites glassy material preparation</i> A.L. Andrade¹, K.J. de Almeida², A.M. Mesquita², J.D. Fabris³, R.Z. Domingues⁴, J.M.F. Ferreira⁵</p>

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P3-14	<p><i>Leukocytes-magnetic nanoparticles interaction visualized using digital holographic microscopy</i> M. Mihailescu¹, I. A. Paun¹, L. O. Cinteza², E. Vasile¹, R. C. Popescu³, R. Radu⁴, M. Savin^{5,6}, O. T. Nedelcu⁷ 1Politehnica University from Bucharest, 313 Splaiul Independentei, Bucharest, Romania 2Physical Chemistry Department, University of Bucharest, Romania 3National Institute for Physics and Nuclear Engineering H.hulubei, Magurele, Romania 4Lotus Hospital, Ploiesti, Romania, 5DDS Diagnostic SRL, Bucharest, Romania 6Chemistry Faculty, University of Bucharest, Romania 7National Institute for Research and Development in Microtechnologies IMT Bucharest, Romania</p>
P3-15	<p><i>Evaluation of anticancer properties of platinum nanoparticles against U87 Glioblastoma multiforme cells line</i> M. Kutwin¹, E. Sawosz¹, S. Jaworski¹, M. Wierzbicki¹, B. Strojny¹, N. Kurantowicz¹, A. Chwalibog² 1Warsaw University of Life Science, Faculty of Animal Science, Poland, 2University of Copenhagen, Department of Veterinary Clinical and Animal Sciences, Copenhagen, Denmark</p>
P3-16	<p><i>Attaching DNA binding proteins on hybrids of DNA and single-walled carbon nanotubes</i> K. Umemura Department of Physics, Tokyo University of Science 1-3 Kagurazaka, Shinjuku, Tokyo 1628601, Japan</p>
P3-17	<p><i>Polyethyleneimine Modified Calcium Carbonate Nanoparticles for p53 Gene Delivery</i> C. Chen¹, W. Yang¹, I-S. Lee², X.D. Kong¹ 1Bio-X Center, College of Life Sciences, Zhejiang Sci-Tech University, China 2Institute of Natural Sciences, Yonsei University, Seoul 120-749, Korea</p>
P3-18	<p><i>Biodistribution of magnetite based nanoparticles determined by two different approaches</i> M. Boskovic¹, S. Vranjes-Djuric¹, B. Antic¹ Institute of Nuclear Sciences "Vinca", POB 522, 11001 Belgrade, Serbia</p>
P3-19	<p><i>Squalene based lipid nanocarriers for co-encapsulation of pemetrexed and hesperidin: A comparative antioxidant, co-release and antitumoral study</i> G. Badea¹, I. Lacatusu², N. Badea¹, R. Stan¹, C. Ott¹, I. Grafu¹, O. Popa², A. Meghea¹ 1POLITEHNICA University of Bucharest, Faculty of Applied Chemistry and Materials Science, Bucharest, Romania; 2Faculty of Biotechnology, University of Agronomic Sciences and Veterinary Medicine, Bucharest, Romania</p>
P3-20	<p><i>²²³Ra-NaA-silane-PEG-SP(5-11) radiobioconjugate as a potential radiopharmaceutical for targeted α therapy of glioblastoma multiforme</i> A. Majkowska-Pilip¹, P. Koźmiński¹, A. Piotrowska¹, F. Bruchertseifer², A. Morgenstern², A. Bilewicz¹ 1Institute of Nuclear Chemistry and Technology, Dorodna16, 03-195 Warsaw, Poland 2Institute for Transuranium Elements, Joint Research Center, 76344 Karlsruhe, Germany</p>
P3-21	<p><i>Silica-magnetite system for medical therapy based on hyperthermia</i> A.L. Andrade¹, J.D. Fabris², 3, R.Z. Domingues³, J.M.F. Ferreira⁴ 1Departamento de Química-ICEB, Universidade Federal de Ouro Preto, 35400-000 Ouro Preto, Minas Gerais, Brazil 2Universidade Federal dos Vales do Jequitinhonha e Mucuri, UFVJM, 39100 000 Diamantina, Minas Gerais, Brazil 3Departamento de Química-ICEX, UFMG, 31270-90 Belo Horizonte, Minas Gerais, Brazil 4Departamento de Engenharia Cerâmica e do Vidro, CICECO, Universidade de Aveiro, Aveiro P-3810193, Portugal</p>
P3-22	<p><i>Imaging and spectroscopic comparison of multi-step methods to form DNA arrays based on the biotin-streptavidin system</i> K. Gajos¹, A. Budkowski¹, P. Petrou², K. Awsiuk¹, A. Bernasik³, J. Rysz¹, K. Misiakos⁴, I. Raptis⁴, S. Kakabakos² 1Inst. of Physics, Jagiellonian University, Łojasiewicza 11, 30-348 Kraków, Poland 2INRaSTES, National Center for Sci.Research "Demokritos", 15310 Aghia Paraskevi, Greece 3FPACS & ACMin, AGH-University of Science & Technology, 30-059 Kraków, Poland 4Inst. Nanoscience & Nanotechnology, NCSR Demokritos, 15310 Aghia Paraskevi, Greece</p>

P3-23	<i>Liposomes Modified with Hydrophobic Magnetic Nanoparticles as Potential Carriers of Doxorubicin to Tumour Cells</i> A. Joniec, P. Krysiński Faculty of Chemistry, University of Warsaw Pasteura 1, Warsaw 02-093, Poland
P3-24	<i>New natural extract-SiO2 nanocomposites for keloid treatment</i> A. Scano ¹⁻² , F. Ebau ¹ , M. L. Manca ³ , V. Cabras ¹ , M. Pilloni ¹ , A. Fadda ³ , G. Ennas ¹ ¹ University of Cagliari and Cagliari Research Unit of the National Consortium of Materials Science and Technology (INSTM), Italy ² Prigen srl, Sardegna Ricerche Building 3, Località Pixinamanna, 09010 Pula, Sardegna, Italy ³ Life and Environment Science Dept., Section of Drug Sciences, CNBS, University of Cagliari, Italy
P3-25	<i>Protein mapping in single cells by Photothermal Infrared Nanospectroscopy</i> A. Nucara ¹ , V. Giliberti ¹ , L. Rossi ¹ , M. Ortolani ¹ , P. Calvani ¹ , A. Rosa and L. Baldassarre ² ¹ Dipartimento di Fisica, Università di Roma La Sapienza, P.le A. Moro, 2, 00185 Roma, Italy ² Center for Life Nano Science @Sapienza, Istituto Italiano di Tecnologia, V.le Regina Elena 291, 00186 Roma, Italy
P3-26	<i>Crucial role of the protein corona for the blood-brain barrier crossing of nanoparticles</i> M. Masserini ¹ , P. Andreozzi ² , M. Tringali ³ , C. Chinello ¹ , P. Bigini ⁴ , F. Fiordaliso ⁴ , S. Krol ² , M. Salmona ⁴ , F. Stellacci ⁵ , F. Re ¹ ¹ Dept. of Health Sciences, ³ Department of Environmental Sciences, University of Milano-Bicocca, Monza, Italy; ² IRCCS Foundation Institute for Neurology 'Carlo Besta', IFOM-IEO-Campus, Milano, Italy; ⁴ IRCCS-Istituto di Ricerche Farmacologiche "Mario Negri", Milan, Italy; ⁵ Institute of Materials, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.
P3-27	<i>PEDOT biocompatibility and electrochemical mammalian cell biosensor assembly for environmental pollutant toxicity assessment</i> E. Flampouri ¹ , S. Mavrikou ¹ , A. C. Mouzaki-Paxinou ² , S. Kintzios ¹ ¹ Department of Biotechnology, School of Food, Biotechnology and Development, Agricultural University of Athens, Iera Odos 75, 11855, Athens, Greece ² Department of Plant Science, School of Agriculture Engineering and Environmental Sciences, Agricultural University of Athens, Greece
P3-28	<i>Particle Size and Dose Dependent Anticancer Activity of Biocompatible Multifunctional Magnetic Particles</i> K-H. Choi ¹ , B. J. Park ¹ , J-S. Jung ² Plasma Bioscience Research Center and department of Electrical & Biological Physics, Kwangwoon University, 20 Kwangwoongil, 410-820, Korea Department of Chemistry, Gangneung-Wonju National University, Gangneung, 210-702, Korea
P3-29	<i>Biomechanical properties of equine synovial fluid</i> E. Rizos ¹ , G. Tymenopoulou ² , N. Diakakis ² , A. Aggeli ¹ ¹ School of Chemical Engineering, AUTH, Thessaloniki, Greece ² School of Veterinary Medicine, AUTH, Thessaloniki, Greece
P3-30	<i>Denaturated collagen as an injectable nano-gel in biomedical engineering: biomechanical properties and applications in minimally invasive tissue engineering</i> A. Papadopoulou, E. Rizos, A. Aggeli School of Chemical Engineering, AUTH, Greece
P3-31	<i>New hybrid biomaterial of biopolymers reinforced with silver nanoparticles and their use in biomedical engineering</i> A. Spathis ¹ , E. Rizos ¹ , D. Papadopoulos ² , A. Tsouknidas ² , D. Tsipas ² , N. Michalidis ² , A. Aggeli ¹ ¹ Department of Chemical Engineering, AUTH ² Department of Mechanical Engineering, AUTH Thessaloniki, Greece
P3-32	<i>The internal circuit system for cancer treatment and other wholesome uses</i> Priyajit Ghosh Asansol engineering college, asansol)
P3-33	<i>Hybrid composites made of MWCNTs functionalized with Fe₃O₄ nanoparticles for magnetically-controlled drug delivery applications</i> S. Papazoglou ¹ , I. Theodorakos ¹ , M. Makrygianni ¹ , L. Agiotis ¹ , G. Vertsioti ⁴ , A. Ntziouni ² , M., Patitsa ³ , D. Stamopoulos ⁴ , K. Kordatos ² , A. Klinakis ³ , Y.S. Raptis ¹ , I. Zergioti ¹ ¹ NTUA, Physics Department, Heroon Polytehneiou 9, 15780, Zografou, Greece ² NTUA, Chemical Engineering Department, Heroon Polytehneiou 9, Zografou, Greece ³ Biomedical Research Foundation Academy of Athens, Greece ⁴ Institute of Advanced Materials, Physicochemical Processes, Nanotechnology and Microsystems, NCSR Demokritos, Greece
P3-34	<i>Tumour Theranostics Based on Metal Oxide Nanoparticles Materials</i>

	<p>A. Wu^{1,2*} 1 Ningbo Institute of Materials Technology & Engineering (NIMTE), Chinese Academy of Sciences, (CAS), Ningbo, China. 2 Faculty of Chemistry, University of Marburg, Marburg/Lahn, 35032, Germany</p>
P3-35	<p><i>Stable vs Vulnerable plaque in Acute Myocardial Infarction and Sudden Death and statistical analysis of the causes via AFM imaging</i> C.Vassara^{1,2}, S. Logothetidis¹, V. Karagkiozaki¹, Y.Giannoglou³, L.Kobatsh⁴, Miliaras⁵ 1 Lab for Thin Films Nanosystems and Nanometrology, Department of Physics, AUTH, Thessaloniki 2 St Paul Hospital, Kardiological Clinic, Finikas, Thessaloniki 3 A Kardiological Clinic, A.X.E.P.A. Hospital, AUTH 4 Necrotomic Department, AUTH 5 Pathohistological Department AUTH</p>
P3-36	<p><i>Harvesting Data from the Nanotoxicology Literature to Support Computational Predictions of Nanomaterial Hazard</i> R.L. Marchese Robinson¹, A. Cassano¹, A.-N. Richarz¹, M. T.D. Cronin¹ 1 School of Pharmacy and Biomolecular Sciences, Liverpool John Moores University UK</p>
P3-37	<p><i>New hybrid nanocomposite Magnesium nanoparticles / Rapamycin coatings for drugeluting stents: In vitro study for cytotoxicity and biocompatibility</i> M. Draganov¹, V. Serbezov^{2,3}, D. Draganov⁴, S. Serbezov³, Y. Feodorova¹ 1 Medical University of Plovdiv, Bul. "Vasil Aprilov" 15-A, 4002 Plovdiv, Bulgaria, 2 Nanotechplasma SARL, P.O.Box 515 1211 Geneva 17 Rue Général-Dufour 20 CH -1204 3 Nanotechplasma Ltd., Blvd. "Sankt Petersburg" 61, Innovative Centre, Plovdiv, Bulgaria 4 Institute of Molecular Biology & Biotechnology, Plovdiv, Bulgaria</p>
P3-38	<p><i>New hybrid nanocomposite Magnesium nanoparticles / Paclitaxel coatings for drugeluting stents: In vitro drug release study</i> V.Serbezov^{1,2}, S.Dagnon³, Sv.Serbezov¹ 1 Nanotechplasma Ltd., Blvd. "Sankt Petersburg" 61, Innovative Centre, Plovdiv, Bulgaria 2 Nanotechplasma SARL, P.O.Box 515 1211 Geneva 17, Rue Général-Dufour 20, CH-1204 3 Department of Chemistry, Plovdiv University, " Tzar Asen" 24 Str., Plovdiv, Bulgaria</p>
P3-39	<p><i>Toxicity Studies of PLGA Nanoparticles for Targeting Atherosclerosis</i> V. Karagkiozaki¹, F. Pappa¹, S. Moya², E. Rojas Darceles², J. Llop³, E. Diamanti², D. Arvaniti¹, S. Logothetidis¹ 1. Nanomedicine Group, Lab for "Thin Films- Nanosystems & Nanometrology", Department of Physics, AUTH, Greece 2. Soft Matter Nanotechnology Sector, Center for Cooperative Research in Biomaterials (CIC-biomaGUNE), San Sebastian, Spain 3. Radiochemistry & Nuclear Imaging Sector, Center for Cooperative Research in Biomaterials (CICbiomaGUNE), San Sebastian, Spain</p>
P3-40	<p><i>Surface Modification of Polymeric Scaffolds for Enhanced Neural Regeneration</i> F. Pappa¹, V. Karagkiozaki¹, D. Konstantinou¹, S. Fachouri¹, Th. Choli-Papadopoulou², S. Logothetidis¹ 1. Nanomedicine Group, Lab for "Thin Films- Nanosystems & Nanometrology", AUTH, Greece 2. Biochemistry Laboratory, Department of Chemistry, AUTH, Greece</p>
P3-41	<p><i>Development of Vancomycin-loaded Scaffolds for Orthopedic Implants</i> F. Pappa¹, 2, V. Karagkiozaki¹, 2, D. Konstantinou², K. Tsipla², O. Savvidou³, P. Papaggeorgopoulos³, S. Logothetidis¹ 1. BL NanoBiomed P.C, Thessaloniki, Greece 2. Nanomedicine Group, Lab for "Thin Films- Nanosystems & Nanometrology", Department of Physics, AUTH, Greece 3. Orthopedic Clinic, "Attikon" University Hospital, Athens, Greece</p>
P3-42	<p><i>In vivo and in vitro studies of nanoparticle uptake and translocation in the respiratory system with label-free techniques</i> C. Merker¹, M. Dorn¹, J. Vogt², J. Keller³, S. Groeters³, R. Landsiedel³, I. Estrela-Lopis¹ 1 Institute for Medical Physics & Biophysics, University of Leipzig, Germany 2 Institute for Experimental Physics II, University of Leipzig, Germany 3 BASF SE 67056, Ludwigshafen, Germany</p>
P3-43	<p><i>Design of versatile and fast colloidal sensor based on virus modified particles</i> S.E. Moya¹, E. Diamanti¹, J. Irigoyen¹, J. Fledderman², E. Donath², L. Dähne³ 1) CIC biomagune, Paseo Miramón 182c, San Sebastian, Spain 2) University of Leipzig, Leipzig, Germany 3) SurfRay, Max Planck Str.3, Berlin, Germany.</p>

P3-44	<p><i>Nanoparticles and Brain: A Gordian knot or a new biomedical springboard?</i> C. Poullos¹, V. Karagkiozaki², D. Kapoukranidou³, S. Logothetidis² ¹ Pathology Department, Faculty of Medicine, AUTH, Thessaloniki, Greece ² Nanomedicine Group, Laboratory for Thin Films - Nanosystems & Nanometrology – LTFN, Physics Department, AUTH, Thessaloniki, Greece ³ Department of Physiology, Faculty of Medicine, AUTH, Thessaloniki Greece</p>
P3-45	<p><i>Highly sensitive enzymatic biosensors for the determination of metabolites in complex media</i> A.M. Pappa, X. Strakosas, R.M. Owens Department of Bioelectronics, Ecole Nationale Supérieure des Mines, CMP-EMSE, Gardanne 13541</p>
P3-46	<p><i>Probing cytotoxicity of carbon dots: the effect of surface coating</i> M. Havrdova¹, K. Hola¹, J. Skopalik², K. Tomankova³, M. Petr¹, K. Cepe¹, K. Polakova¹, A. B. Bourlinos⁴, J. Tucek¹, R. Zboril¹ ¹ Regional Centre of Advanced Technologies and Materials, Department of Experimental Physics and Physical Chemistry, Faculty of Science, Olomouc, Czech Republic ² Department of Pharmacology, Faculty of Medicine, Masaryk University, Brno, Czech Republic ³ Department of Medical Biophysics, Faculty of Medicine and Dentistry, Institute of Translation Medicine, Palacky University in Olomouc, Olomouc, Czech Republic ⁴ Physics Department, University of Ioannina, Ioannina 45110, Greece</p>
P3-47	<p><i>Evaluation of anticancer properties of platinum nanoparticles against U87 Glioblastoma multiforme cells line</i> M. Kutwin¹, E. Sawosz¹, S. Jaworski¹, M. Wierzbicki¹, B. Strojny¹, N. Kurantowicz¹, A. Chwalibog² ¹Warsaw University of Life Science, Faculty of Animal Science, Division of Biotechnology and Biochemistry of Nutrition, Warsaw, 02-786, Poland, ²University of Copenhagen, Department of Veterinary Clinical and Animal Sciences, Copenhagen, DK-1870, Denmark</p>
P3-48	<p><i>Core-shell Nanoparticles for Cancer Treatment by Hyperthermia*</i>. J.A. Martínez García^{1,*}, Carlos Alberto Martínez Pérez¹, Chirstian Chapa González¹ and Perla E. García Casillas¹ ¹ Instituto de Ingeniería y Tecnología, Universidad Autónoma de Ciudad Juárez, México</p>

Workshop 4 – Bioelectronics

P4-1	<i>Printed Organic Bioelectronic Devices</i> Q. Thiburce, A. Campbell Department of Physics, Experimental Solid State Physics Group, Blackett Laboratory, Imperial College London, UK
P4-2	<i>THz oscillations in small DNA segments</i> K. Lambropoulos, K. Kaklamanis, G. Georgiadis, M. Theodorakou, M. Chatzieftheriou, M. Tassi, A. Morphis, and C. Simserides National and Kapodistrian University of Athens, Faculty of Physics, Department of Solid State Physics, Panepistimiopolis, GR-15784 Zografos, Athens, Greece
P4-3	<i>Exploring and evaluating micro-environment and nanoparticle dielectrophoretic-induced interactions with image analysis methods.</i> D. J. Bakewell ¹ , J. Bailey ^{2,3} , D. Holmes ^{2,4} ¹ Department of Electrical Engineering and Electronics, University of Liverpool, Liverpool, UK ² London Centre for Nanotechnology, University College London, London, UK ³ Centre for Math., Physics, Life Sci. and Experiment. Biology, University College London, London, UK ⁴ Sphere Fluidics Ltd, Babraham Research Campus, Babraham, Cambridge, UK
P4-4	<i>Three-Mask Polysilicon Dual-Gate TFT for Biosensing Applications</i> I. Zeimpekis ¹ , K. Sun ¹ , C. Hu ¹ , O. Thomas ² , M.R.R. de Planque ¹ , H.M.H Chong ¹ , H. Morgan ¹ , and P. Ashburn ¹ ¹ Zeppler Institute, Electronics & Computer Science, University of SouthamptonSouthampton, SO17 1BJ, UK ² Oxford Instruments Plasma TechnologyYatton, Bristol BS49 4AP, UK
P4-5	<i>PPG sensor for noninvasive mobile health monitoring</i> A. Poghosyan ¹ , V. Mouradian ² , L. Hovhannisyan ¹ ¹ Sensogram Technologies, LLC, Yerevan, Armenia, ² Sensogram Technologies, Inc., Plano, TX, USA
P4-6	<i>Ultrasonically sprayed flexible thin film electrodes for implantable bio-fuel cells</i> A. Laaroussi ^{1,2,3} , n. Lalaoui ⁴ , n. Reverdy-bruas ^{1,2,3} , a. Le goff ⁴ , m. Holzinger ⁴ , s. Cosnier ⁴ , d. Chaussy ^{1,2,3} , n. Belgacem ^{1,2,3} ¹ Univ. Grenoble Alpes, LGP2, F-38000 Grenoble, France ² CNRS, LGP2, F-38000 Grenoble, France ³ Agefpi, LGP2, F-38000 Grenoble, France ⁴ DCM, UMR CNRS-UJF 5250, ICMG FR-2607, Université Joseph Fourier-Grenoble 1 1,2,3461 rue de la Papeterie - CS 10065 - 38402 Saint-Martin d'Hères Cedex, France
P4-7	<i>Modern Trends In Biosensors And Nanosensors</i> IGBOKWE, E.E ABIA STATE POLYTECHNIC, ABA.
P4-8	<i>Synthesis and functionalization of Gold Nanoparticles</i> D. Arvaniti ¹ , V. Karagkiozaki ¹ , A. Papamichail ¹ , D. G. Fatouros ² , L. Tzounis ¹ , Th. Choli-Papadopoulou ³ , S. Logothetidis ¹ ¹ Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology" (LTFN), PhysicsDepartment, AUTH (A.U.Th), Greece ² Department of Pharmaceutical Technology, School of Pharmacy, A.U.Th, Greece ³ Biochemistry Lab, Department of Chemistry, A.U.Th., Greece
P4-9	<i>Comparative study of the sessile drop and captive bubble methods for the measurement of the dynamic wettability of PEDOT:PSS</i> C.Duc ¹ , A. Vlandas ¹ , G. Malliaras ² , V. Senez ¹ ¹ (BioMEMS, Institut d'Electronique de Microelectronique et de Nanotechnologie, Lille University)France ² (Department of Bioelectronics Ecole Nationale Supérieure des Mines CMP-EMSE, MOC), France

Workshop 5 – Graphene And Related Materials

P5-1	Efficient transfer of graphene grown on copper substrates using electrochemical delamination D. Papas ¹ , S. Chaitoglou ² , A. Zachariadis ¹ , E. M. Pechlivani ¹ , A. Papamichail ¹ , A. Laskarakis ¹ , S. Logothetidis ¹
P5-2	Production of Graphene Reinforced Poly ϵ -caprolactone (PCL) Scaffolds G. Cosar, S. Tasdemir, A. Sendemir Urkmez Ege University Bioengineering Department, Izmir, Turkey
P5-3	Modeling of enhanced absorption in graphene caused by plasmonic near fields A. Dagkli, S. Evangelou, E. Lidorikis Department of Materials Science and Engineering, University of Ioannina, Ioannina 45110, Greece
P5-4	Graphene based micro-sensors using an innovative MEMS/CMOS platform for environmental monitoring applications D.Ulieru, X.Vila, Oana-Maria Ulieru, A.Topor SITEX 45 SRL,R&D Department, 114,GHICA TEI BLVD,BL.40,AP.2,DEPT.2,Bucharest 023709,Romania
P5-5	Evaluation of graphene oxide-magnetic-gold nanohybrids as enzyme mimics for biosensing applications D.K. Toubanaki ^{1*} , P. Bilalis ² , M. Margaroni ¹ , H. Iatrou ² , E. Karagouni ¹ 1 Laboratory of Cellular Immunology, Department of Microbiology, Hellenic Pasteur Institute, 127 Vas. Sofias Ave., 11521 Athens, Greece 2 University of Athens, Chemistry Department, Panepistimiopolis, Zografou, 15771, Athens, Greece
P5-6	Kinetics in CVD graphene growth.The effect of pressure and gases flows. S. Chaitoglou [¶] , S. Logothetidis [§] , E. Pascual [¶] , J.L. Andújar [¶] and E. Bertran [¶] ¶FEMAN Group, IN2UB, Department of Applied Physics and Optics, Universitat de Barcelona,C/ Martí i Franquès, 1, 08028, Barcelona, Spain. §Lab for Thin Films, Nanosystems & Nanometrology (LTFN), Department of Physics AUTH, , Thessaloniki, Greece
P5-7	Heavy metals removal by graphene oxide S.Šemčuk ¹ , G. Lujanienė ¹ , S. Tautkus Center for physical sciences and technologySavanorių ave. 231 LT-02300 Vilnius, Lithuania
P5-8	Chemical route to get hexagonal boron nitride graphene-like few layers B. Toury ¹ , S. Yuan ¹ , C. Journey ¹ , A. Brioude ¹ 1 Laboratoire des Multimatériaux et Interfaces, University of Lyon, 22, avenue Gaston Berger, 69100 Villeurbanne, France - toury@univ-lyon1.fr
P5-9	Layer-by-layer assembled polyvinyl alcohol/graphene oxide composite for high gas barrier applications M.-U. Park ¹ , W.-B. Park ¹ , R.K. Layek ¹ , N.-H. Kim ¹ , J.-H. Lee ^{1, 2, *} 1Applied Materials Institute for BIN Convergence (BK Plus Global Program), Department of BIN Convergence Technology, Chonbuk National University, Jeonju, Jeonbuk, Korea 2Center for Carbon Composite Materials, Department of Polymer & Nano Engineering, Chonbuk National University, Jeonju, Jeonbuk, 561-756, Korea
P5-10	Facile synthesis of high quality AuNPs/graphene nanohybrids by chemical vapor deposition for non-enzymatic glucose sensor T.-D. Thanh ¹ , J. Balamurugan ¹ , M.-G. Yu ¹ , J.-S. Ryu ¹ , J.-H. Lee ^{1,2*} 1Advanced Materials Institute of BIN Convergence (BK21 plus Global) & Department of BIN Convergence Technology, Chonbuk National University 2Center for Carbon Composite Materials, Department of Polymer & Nano Science and Technology, Chonbuk National University, Jeonju, Jeonbuk, 561-756, Republic of Korea
P5-11	Polyethyleneimine functionalized graphene oxide coating for enhanced hydrogen gas barrier properties W.-B. Park ¹ , R.-K. Layek ¹ , N.-H. Kim ¹ , L.-K. Kwac ² , H.-G. Kim ³ , J.-H. Lee ^{1, 4*} 1Advanced Materials Institute of BIN Convergence (BK21 plus Global) & Department of BIN Convergence Technology, Chonbuk National University 2Department of Manufacturing Technology and Design Engineering, Jeonju University 3Department of Mechanical and Automotive Engineering, Jeonju University 4Center for Carbon Composite Materials, Department of Polymer & Nano Science and Technology, Chonbuk National University, Jeonju, Jeonbuk, 561-756, Republic of Korea
P5-12	Synthesis of nitrogen-doped graphene oxide hydrogel for energy electrode materials N.-H. Kim ¹ , W. Park ¹ , M.-G. Yu ¹ , Tapas Kuita ² , J.-H. Lee ^{1,3,*} 1Advanced Materials Institute of BIN Convergence (BK21 plus Global) & Department of BIN Convergence Technology, Chonbuk National University 2Surface Engineering & Tribology Division, CSIR-Central Mechanical Engineering Research Institute, Council of Scientific & Industrial Research (CSIR), India 3Center for Carbon Composite Materials, Department of Polymer & Nano Science and Technology, Chonbuk National University, Jeonju, Jeonbuk, 561-756, Republic of Korea

P5-13	<p><i>Design of Pyrene Functionalized PMMAs of Different Topologies for the Fabrication of Graphene/Polymer Nanocomposites</i> K.D. Papadimitriou,1,2 E.N. Skountzos,1,2 S. Gkempoura,1,2 V.G. Mavrantzas,1,2,3 C. Galiotis,1,2 and C. Tsitsilianis1,2* 1FORTH/ICE-HT, Stadiou Str., P.O. Box 1414, GR 26504, Rio-Patras, Greece 2Department of Chemical Engineering, University of Patras, GR 26504, Patras, Greece 3Particle Technology Laboratory, Department of Mechanical and Process Engineering, ETH-Z, CH-8093 Zürich, Switzerland</p>
P5-14	<p><i>Investigation on the microwave absorption properties of Fe/ Fe3O4/reduced graphene oxide nanorings.</i> Y.Ding1, Q.L.Liao1,, X.Q.Yan1, X.H.Zhang1, Y.Zhang1 * 1 State Key Laboratory for Advanced Metals and Materials, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing 100083, China.</p>
P5-15	<p><i>Melt-spinning of in-situ polymerised ε-caprolactam in presence of graphene monolayers</i> J. Mrosczcok1, J. Weise1, G. Seide1, T. Gries1 1Institut für Textiltechnik of RWTH Aachen University (Nano Modified Fibres),Aachen, Germany</p>
P5-16	<p><i>Synthesis and characterization of silver nanoparticles functionalized graphene oxide for using in polymer composites</i> I. Ion1, M.V. Lungu1, D. Patro1, V. Marinescu1, V. Tsakiris1, A. Bratulescu1, M. Lungulescu1,M.C. Chifiriuc2, M. Popa2, L. Nistor3, G. Epurescu4 1.National Institute for R&D in Electrical Engineering ICPE-CA Bucuresti, Romania. 2.University of Bucharest, Faculty of Biology, Microbiology Departmen6-Bucharest, Romania 3.National Institute of Materials PhysicsAtomistilor Str., No. 105 bis, 077125, Magurele, Romania 4.National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania</p>
P5-17	<p><i>Stationary charge and current distributions in carbon nanocones under magnetic and electric fields</i> M. Pacheco1, P. Ulloa1, A. Latgé2 1Physics department, Universidad Técnica Federico Santa María Avda España 1680 Valparaíso, Chile 2Physics institute,Universidade Federal Fluminense24210-340 Niteroi-RJ, Brazil</p>
P5-18	<p><i>Au NPs/RGO Hybrid for High-Efficient Reduction of 4-Nitrophenol</i> W. Wang1,2, X. Guo1,2, W. Hao1, L. Zhang1, J. Yu1 and L. Sun2 1. Jiangsu Key Laboratory of Advanced Metallic Materials, School of Materials Science and Engineering, Southeast University, Nanjing 211189, China; 2. SEU-JSRI Joint Research Center for the Application of Advanced Carbon Materials, Nanjing 210096,China)</p>
P5-19	<p><i>Transition Metal Dichalcogenide Field-effect Transistors BasedComplementary Inverter Exhibiting High-gain</i> A.-J. Cho1,2, K.-C. Park3, J.-Y. Kwon1,2 1 Yonsei Institute of Convergence Technology. 2 Department of Electric Engineering, Konkuk University. 3Incheon, 406-840, South Korea.1,2 Seoul, 143-701, South Korea</p>
P5-20	<p><i>Intrinsic graphene surface on a plastic via microwave flash heating</i> H.-J. Jeong1*, H.-Y. Kim1,2, K.-J. Baeg1, S. Jung1, J.-T. Han1, S.-Y. Jeong1, M.-S. Jeong2, G.-W. Lee1* 1Nanocarbon Material Research Group, Korea Electrotechnology Research Institute (KERI), Republic of Korea 2IBS center for Integrated Nanostructure Physics, Institute for Basic Science, Sungkyunkwan University, Republic of Korea</p>
P5-21	<p><i>Few-layer graphene Langmuir film decorated by Pd nanoparticles for NO2 gas sensing</i> D. Kostiuik, S. Luby, M. Benkovicova, P. Siffalovic, K. Vegso, J. Ivanco, M. Jergel, E. Majkova 1Institute of Physics, Slovak Academy of Sciences, Dubravská cesta 9, 84511 Bratislava, Slovakia</p>
P5-22	<p><i>DFT investigation of optoelectronic properties of graphene modified with boron atoms</i> 1Svetlana S. Pelemiš, 2Sanja J. Armaković and 3Stevan Armaković 1 University of East Sarajevo, Faculty of Technology, Zvornik, Bosnia and Herzegovina, 2 University of Novi Sad, Department of Chemistry, Novi Sad,Serbia, 3 University of Novi Sad, Department of Physics, Novi Sad, Serbia</p>
P5-23	<p><i>Nanophone</i> D. Jovanović1, D. Todorović2,3, A. Matković1, M. Spasenović1, M. Milićević1, I. Salom4 and R. Gajić1 1Center for Solid State Physics and New Materials, Institute of Physics Belgrade, University of Belgrade, Belgrade, Serbia 2 School of Electrical Engineering, University of Belgrade, Belgrade, Serbia 3Dirigent Acoustics Ltd, Mažuranićeva 29/9, 11050 Belgrade, Serbia 4Institute Mihailo Pupin, University of Belgrade, Volgina 15, 11060 Belgrade, Serbia</p>

P5-24	<p><i>Graphene / platinum transparent conductive composite film by plasmaassisted CVD</i> C.-C. Kuo^{1,2}, S.-H. Chan², and Y.-C. Cheng¹ ¹Graduate Institute of Energy Engineering/Thin Film Technology Center National Central University, Taiwan ²Department of Optics and Photonics/Thin Film Technology Center, National Central University, Taiwan</p>
P5-25	<p><i>Structural properties of graphene functionalized with hydroxyl and epoxide groupsby density functional theory approach</i> C. Vacacela Gomez¹, E. Robalino², D. Haro², T. Tene Fernandez¹, J. Orbe², P. Escudero² A. Haro² ¹ Dipartimento di Fisica, Università della Calabria, Italia ² Escuela Superior Politécnica de Chimborazo, Escuela de Física y Matemática, Ecuador</p>
P5-26	<p><i>Modification of Graphene Oxide as Catalyst Support for Fuel Cells</i> V. Sadhu¹, E. Jamil², S. Ghobadi², V. Bayram², S.A. Gürsel^{1,2} ¹Nanotechnology Research and Application Center, Sabanci University, 34956 Istanbul, Turkey ²Faculty of Natural Science and Engineering, Sabanci University, 34956 Istanbul, Turkey</p>
P5-27	<p><i>Suppression of bacterial interaction through graphitic coatings</i> R. Henriquez¹, C. Parra¹, F. Montero-Silva², M. Flores³, C. Ramirez⁴, C. Garin¹, J. Correa⁵, M. Seeger², P. Haberle¹. ¹Departamento de Física, Universidad Técnica Federico Santa María, Valparaíso, Chile. ²Departamento de Química, Universidad Técnica Federico Santa María, Valparaíso, Chile. ³Departamento de Física, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile, Santiago, Chile. ⁴Departamento de Ingeniería Química y Ambiental, Universidad Técnica Federico Santa María, Valparaíso, Chile. ⁵Instituto de Física, Pontificia Universidad Católica de Valparaíso, Valparaíso, Chile.</p>
P5-28	<p><i>Fano effect and thermoelectrical properties of bilayer graphene nano-ribbons</i> P.A. Orellana¹, L. Rosales¹, M. Pacheco¹, and L. Chico² ¹ Physics Department, UTFSM, Casilla 110 V, Valparaíso, Chile ² ICMM-CSIC, Madrid, Spain</p>
P5-29	<p><i>The effect of thickness of Cu substrate to quality of graphene film</i> M. Yilmaz¹, V.G. Acar², O. Doğan² ¹Department of Metallurgical and Materials Engineering, N.Erbakan University ²A.Cengiz Faculty of Engineering 42370 Seydişehir/Konya, Turkey ²Department of Physics, N.Erbakan University ²A.K. Education Faculty 42090 Meram/Konya, Turkey</p>
P5-30	<p><i>A novel Technique for Preparation of Graphene from Graphite with Using Mechanical Milling</i> A. Hasanpour*¹, Y. Heidari¹, M. Niyafarr¹, ... (Department of Physics, college of Science Islamic Azad University, Ahvaz Branch Ahvaz Iran)</p>
P5-31	<p><i>Uniaxial tensile strain on free-standing graphene</i> I. Polyzos¹, M. Bianchi², L. Rizzi², J. Parthenios¹, K. Papagelis^{1,3}, R. Sordan² and C. Galiotis^{1,4} ¹Institute of Chemical Engineering Sciences, Foundation of Research and Technology-Hellas (FORTH/ICE-HT), Patras, Greece, ²L-NESS, Department of Physics, Politecnico di Milano, Polo di Como, Via Anzani 42, 22100, Italy, ³Department of Materials Science, University of Patras, Patras, Greece, ⁴Department of Chemical Engineering, University of Patras, Patras, Greece</p>