



3-6 July 2012

9th International Conference on Nanosciences & Nanotechnologies – NN12

'Ioannis Vellidis' Congress Centre, 3 - 6 July 2012
Thessaloniki, Greece

PROGRAM

Tuesday 3 July		'Ioannis Vellidis' Congress Centre	
08:00 – All Day	Registration to NN12		
	Keynote Session I (All Workshops of NN12)		
08:45– 09:00	'WELCOME & OPENING REMARKS' <u>Stergios Logothetidis</u> NN12 Chairman <i>Room: Alexandros</i>		
09:00 – 09:30 Keynote Talk	Magnetolectric coupling, screening and electronic states in graphene- and molybdene-based layered nanostructures <u>Efthimios Kaxiras</u> , Elton Gomes Dos Santos, Wei Li Wang <i>Department of Physics, Harvard University, Cambridge MA, USA</i>		
09:30 – 10:00 Keynote Talk	Defectless Self-Assembling of Block Copolymer Thin Films induced by Corrugated Substrates Eleni Pavlopoulou ¹ , Guillaume Fleury ¹ , Karim Aissou ¹ , Jonah Shaver ² , Gilles Pecastaings ¹ , Cyril Brochon ¹ , Christophe Navarro ³ , Stéphane Grauby ² , Jean-Michel Rampnoux ² , Stefan Dilhaire ² , <u>Georges Hadziioannou</u> ¹ <i>1. LCPO, University of Bordeaux, Talence, France.2. LOMA, University of Bordeaux, Talence, France.3. Arkema, Lacq, France.</i>		
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy Session: Plasmonics & Photovoltaics I <i>Chair: Varonides A, Beck F.</i> <i>Room:Kassandros</i>		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session:Nanomaterials Synthesis I <i>Chair: Kaxiras E.</i> <i>Room:Alexandros</i>
10:00-10:30 Invited	Nanoengineering of interfaces in organic photovoltaic devices Marin Rusu <i>Institut für Heterogene Materialsysteme, Helmholtz-Zentrum Berlin für Materialien und Energie, Germany</i>	10:00-10:30 Invited	Core-Shell Nano-Particles from Well Designed Block Copolymers <u>Franz Stelzer</u> , Christian Slugovc, Gregor Trimmel, Frank Wiesbrock <i>Graz University of Technology, Institute for Chemistry & Technology of Materials Stremayrgasse 16, A-8010 Graz, Austria; e-mail: franz.stelzer@tugraz.at</i>
10:30-10:50 Invited Oral	GaAs nanowires for next generation photovoltaics: progress and challenges <u>N. T. Pelekanos</u> ^{1,2,3} , M. Hocevar ¹ , C. Bougerol ⁴ , G. Le Thuy ⁴ , R. Songmuang ⁴ <i>1CEA, LITEN, Laboratoire des Composants Solaires, INES-RDI, Savoie Technolac, 50 avenue du Lac Léman, 73377 Le-Bourget-du-Lac, France</i> <i>2Department of Materials Science and Technology, University of Crete, P.O. Box 2208, 71003 Heraklion, Greece</i> <i>3Microelectronics Research Group, IESL-FORTH, P.O. Box 1385, 71110 Heraklion, Greece</i>		

	4CEA-CNRS Group Nanophysics and Semiconductors, Institute Néel, 17 Rue des Martyrs, 38054 Grenoble, France		
10:50-11:05	Colloidal architectures for plasmonics Renaud Vallée, Mélanie Ferrié, Serge Ravaine Centre de Recherche Paul Pascal (CNRS), 115 Avenue Docteur Schweitzer, 33600 Pessac, France	10:30-11:00 Invited	Structure, Stability and Mechanical Properties of Coiled Carbon Nanotubes M. Damjanovic, Z. Popovic, I. Milosevic Faculty of Physics, Uni of Belgrade, Serbia
11:05 – 11:30	Coffee Break-Exhibition-Networking POSTER SESSION I: All participants of Workshop 1 and Workshop 2 (No P2-1 to P2-70) should put their Posters to the NN12 Poster Area.		
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy <i>Session: Nanoparticles and nanowires for electronic and optoelectronic applications I supported by NANOSOURCE</i> Chair: Tsoukalas D., Grisolia J. <i>Room: Kassandra</i>		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction <i>Session: Nanomaterials Synthesis II</i> Chair: Anastasiadis S., Stelzer F. <i>Room: Alexandros</i>
11:30 – 12.00 Invited	Tuning absorption and scattering of light using Si1-xGex nanowires H. Kallel ^{1,2} , A. Arbouet ¹ , G. BenAssayag ¹ , T. Baron ³ , A. Chehaidar ² , Vincent Paillard ¹ 1 CEMES-CNRS, University of Toulouse, 29 rue Jeanne Marvig, 31055 Toulouse cedex 4, France 2 Dept. of Physics, University of Sfax, FSS, BP 1171, 3003 Sfax, Tunisia 3 LTM-CNRS, 17, avenue des Martyrs, 38054 Grenoble - France"	11:30 – 11.50 Invited	Novel Nanocomposite Catalysts for Carbon Nanotube Growth P. Patsalas, D. Gourni, N.T. Panagiotopoulos, E.K. Diamanti Department of Materials Science and Engineering, University of Ioannina, GR-45110 Ioannina, Greece
12:00 – 12.15	Nanoparticle Coatings by Physical Vapour Deposition for Sensor Applications A. H. Kean, V. Broadley, S. Saranu, G. Vatougia. Mantis Deposition Ltd., 2-4 Goodson Industrial Mews, Wellington Street, Thame, Oxfordshire. OX9 3BX. UK	11:50 – 12.05	Nanoimprinting techniques for energy conversion devices applications B. Weiler, C. Ostermayr, U. Stimming, G. Scarpa Nanothinx S.A., Patras, Greece
12:15 – 12:30	Selective SERS of rhodamine-R6G on Ag-nanoparticles organized in linear arrays M Panagopoulou ¹ , P Photopoulos ² , D Tsoukalas ¹ and Y S Raptis ¹ 1 School of Appl. Math. and Phys. Sci., Physics Department, National Technical University of Athens, Zografou Campus, GR 157 80, GREECE 2 Department of Electronics, TEI of Athens, GR 12210 Aegaleo, GREECE	12:05 – 12:20	Swift heavy ion irradiation for synthesis of the light-emitting Si nanostructures in Si/SiO2 multilayers G.A. Kachurin ¹ , S.G. Cherkova ^{1,2} , D.V. Marin ^{1,2} , A.G. Cherkov ^{1,2} , V.A. Skuratov ³ , V.A. Volodin ^{1,2} , A.H. Antonenko ^{1,2} and G.N. Kamaev ^{1,2} 1 A.V. Rzhanov Institute of Semiconductor Physics, Siberian Branch of Russian Academy of Sciences, Lavrent'eva 13, 630090 Novosibirsk, Russia 2 Novosibirsk State University, Pirogova 2, 630090 Novosibirsk, Russia 3 Joint Institute for Nuclear Research, Joliot-Curie 6, 141980 Dubna, Russia
		12:20 – 12:35	Hydrophilic behavior improved by annealing of TiO2 films obtained by magnetron sputtering DC S. Pascoali ¹ , A. B. Paschoal ² , J. B. Borges ¹ , S. A. B. Bilac ² , O. S. Alarcon ² IF-SC Federal Institute of Education, Science and Technology of Santa Catarina, Av. XV de Novembro, 61, Aeroporto - Araranguá-SC - Brazil.
12:30 – 12:45	Oxide semiconductor nanostructures N. Boukos Institute of Advanced Materials, Physicochemical Processes and Nanotechnology, National Centre for Scientific Research "Demokritos Agia Paraskevi Attikis, Greece 1531	12:35 – 12:50	Picosecond high-repetition-rate pulsed laser deposition of elemental nanostructures of Silicon and Carbon M. Pervolaraki ¹ , Ph. Komninou ² , J. Kioseoglou ² , A. Othonos ³ , G.I. Athanasopoulos ¹ and J. Giapintzakis ^{1,4} 1 Department of Mechanical and Manufacturing Engineering, University of Cyprus, 75 Kallipoleos Av., PO Box 20537, 1678 Nicosia, Cyprus 2 Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki,

			Greece 3 Department of Physics, Research Centre of Ultrafast Science, University of Cyprus, P.O. Box 20537, 1678 Nicosia, Cyprus 4 Nanotechnology Research Unit, University of Cyprus, 75 Kallipoleos Av., PO Box 20537, 1678 Nicosia, Cyprus
12:45 – 13:00	Synthesis of CeO₂ nanoparticles for incorporation in hybrid materials <u>L. Truffault</u> , C.V. Santilli, S.H. Pulcinelli <i>Institute of Chemistry, Physico-chemistry Department, University of São Paulo State (UNESP), Rua Prof. Francisco Degni no 55, PO Box 335 Quitandinha, 14800-900 ARARAQUARA, SP, Brazil</i>	12:50 – 13:05	Experimental Studies on Catalyst Assisted Nucleation Processes in a PLD/VLS System <u>A. Marcu</u> , V.A. Malaroiu, F. Stokker, C. Grigoriu and C. Lungu <i>Laser Department, National Institute for Laser Plasma and Radiation Physics, Atomistilor 409, Bucharest-Magurele, ROMANIA</i> 2. <i>National Institute of Materials Physics, Atomistilor 105bis, Bucharest-Magurele, ROMANIA</i>
13:00 – 13:15	Density control of Zinc Oxide Nanorod Arrays for high performance Quantum Dot Sensitized Solar Cells C. Y. Luan ¹ , Q. Shen ² , T. Toyoda ² , and J. A. Zapien ¹ <i>1 Department of Physics and Materials Science and Center of Super-Diamond and Advanced Films (COSDAF), City University of Hong Kong, Tat Chee Ave, Kowloon Tong, Hong Kong, SAR, PRC</i> <i>2 Department of Applied Physics and Chemistry, The University of Electro-Communications</i> <i>1-5-1 Chofugaoka, Chofu, Tokyo 182-8585, Japan</i>	13:05 – 13:20 Cancelled	Fluorinated Mesoporous Silica Nanoparticles for Mechanically Stable Superhydrophobic Surfaces <u>Adem Yildirim</u> ^{1,2} , Hulya Budunoglu ^{1,2} , Bihter Daglar ^{1,2} , Hakan Deniz ¹ and Mehmet Bayindir ^{1,2,3} <i>1UNAM-National Nanotechnology Research Center,</i> <i>2Institute of Materials Science and Nanotechnology,</i> <i>3Department of Physics, Bilkent University, 06800 Ankara, Turkey</i>
13:15 – 13:30	Metal-like conductivity exhibited by triboelectrically deposited polyaniline (emeraldine base) particles on microtextured SiC surfaces <u>Ilker S. Bayer</u> ¹ , Athanassia Athanassiou ^{1,2} , Roberto Cingolani ² <i>1. Center for Biomolecular Nanotechnologies, Smart Materials Platform, Istituto Italiano di Tecnologia, Lecce, Italy</i> <i>2. Istituto Italiano di Tecnologia, Genova, Italy</i>	13:20 – 13:35	Polyurethane (PUR) nanofibers containing particles of CuO and TiO₂ prepared by electrospinning <u>G. Ungur</u> ¹ , J. Hruza ² <i>Department of nonwovens, Technical university of Liberec Studentska 1402/2, Liberec, Czech Republic</i>
13:30 – 13:50 Invited	Vertical nanowire array for nanoelectronics <u>Guilhem Larrieu</u> <i>Laboratory of Analysis and Architecture of Systems (LAAS), CNRS Toulouse, France</i>	13:35 – 13:50	Electrospun Nanofibers of Composites of Polypyrrole <u>A. Sezai Sarac</u> <i>Department of Chemistry, Polymer Science and Technology, Istanbul Technical University, Maslak, 34469, Istanbul, Turkey</i>
13:50 – 14:05	Laser printing of nanoparticles ink: Investigation of the transfer process by time resolved imaging I. Zergioti <i>National Technical University of Athens, Physics Department, Zografou Campus Greece, 15780</i>	13:50 – 14:05	Influences of argon-helium mixtures on the carbon-coated iron nanoparticles produced by a modified arc discharge <u>M. R. Sanaee</u> , S. Chaitoglou, N. Aguiló-Aguayo, E. Bertran <i>FEMAN Group, IN2UB, Dep. of applied physics and optics, University of Barcelona, Martí Franquès, 1, E08028 Barcelona, Spain</i>
14:05 – 15:00	Lunch Buffet Break		
	Poster Session I - Exhibition – Networking Posters of Workshop 1 and Workshop 2(P2-1 to P2-70) at 14:30 – 15:00 <i>Chair: Konofaos N., Malliaras G., Kassavetis S., Porfyraakis K.</i>		
	Keynote Session II (All Workshops of NN12)		
15:00 – 15:30 Keynote Talk	Hybrid All Carbon Organic Solar Cells Based on Carbon Nanotubes for Energy Harvesting S. Ravi P. Silva <i>Advanced Technology Institute, University of Surrey, Guildford, Surrey GU2 7XH, United Kingdom</i> Room: Alexandros		
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy Session: Nanoparticles and nanowires for electronic and		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction & W3 - Nanomedicine

	<p>optoelectronic applications II supported by NANOSOURCE Chair: Tsoukalas D., Larrieu G. Room: Kassandros</p>		<p>Session: Biomaterials at Nanoscale Chair: Bizios R., Kavatzikidou P. Room: Alexandros</p>
15:30 – 16:00 Invited	<p>High-sensitivity strain gauges based on stripes of colloidal nanoparticles fabricated by convective self-assembly N. Decorde, C. Farcau, N. M. Sangeetha, H. Moreira, B. Viallet, <u>J. Grisolia</u> and L. Ressler <i>Université de Toulouse, LPCNO, INSA-CNRS-UPS, 135 Avenue de Rangueil, Toulouse, 31077, France</i></p>	15:30 – 16:00 Invited	<p>TBA Seyed Moien Moghimi <i>Centre for Pharmaceutical Nanotechnology and Nanotoxicology, Pharm Nanotech (NanoScience Centre, Copenhagen University), Denmark</i></p>
16:00 – 16:30 Invited	<p>Nanowire field effect transistor as testing platform for nanoelectronics <u>D.E. Ioannou</u>, Qiliang Li, Hao Zhu, and Hui Yuan <i>ECE Dept., George Mason University (GMU), USA</i></p>	16:00 – 16:20 Invited	<p>Nanotechnology Inspired by Nature: Basic Physics and Engineering of Peptide Supramolecular Nanostructures Gil Rosenman <i>School of Electrical Engineering-Physical Electronics, Faculty of Engineering, Tel Aviv Uni, Israel</i></p>
16:30 - 16:45	<p>Unified compact model of undoped or lightly doped short-channel cylindrical gate-all-around MOSFETs N. Fasarakis¹, A. Tsormpatzoglou¹, <u>D. H. Tassis</u>¹, G. Ghibaud², C. A. Dimitriadis¹ 1. <i>Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece</i> 2. <i>IMEP-LAHC, MINATEC, INPG, 3 Parvis Louis Neel, BP257, 38016, Grenoble, France</i></p>		
16:45 - 17:00	<p>Nanoparticle sensors on flexible substrates E. Skotadis, D. Mousadakos, S. Stathopoulos, J. Tanner, <u>D. Tsoukalas</u> <i>Department of Applied Physics, National Technical University of Athens, 15780 Zographou Campus, Greece</i></p>	16:20 - 16:35	<p>Multiscale patterning fabrication to study biomolecules in confined environments <u>G. Foschi</u>¹, E. Bystrenova¹, F. Valle¹, B. Chelli¹, M. Barbalinardo¹, P. Greco² and F. Biscarini¹ 1 <i>Consiglio Nazionale delle Ricerche, Istituto per lo Studio dei Materiali Nanostrutturati (CNR - ISMN), Via P. Gobetti 101, 40129 Bologna, Italy</i> 2 <i>Scriba Nanotechnologie srl, Via P. Gobetti 53/2, 40129 Bologna, Italy</i></p>
17:00 - 17:15	<p>Silicon nanorods for novel solar cells G.Z. Radnóczy¹, <u>B. Pecz</u>¹, Th. Stelzner², V.A. Sivakov² and S.H. Christiansen^{2,3} 1. <i>Institute for Technical Physics and Materials Science, Research Centre for Natural Sciences, Hungarian Academy of Sciences, 1121 Budapest, Konkoly-Thege u. 29-33,</i> 2. <i>Institut für Photonische Technologien, Albert Einstein Str. 9, D-07745 Jena, Germany</i> 3. <i>Max Planck Institut für Mikrostrukturphysik, Weinberg 2, D-06120 Halle/Saale, Germany</i></p>	16:35-16:50	<p>Binary Magnetic Nanocomposites of Iron Oxide and Silver Nanoparticles and their Antimicrobial Properties <u>M. Kilianova</u>¹, R. Prucek¹, J. Tucek¹, A. Panacek¹, L. Kvitek¹, M. Kolar² 1 <i>Regional Centre of Advanced Technologies and Materials, Department of Physical Chemistry, the Faculty of Science, Palacky University, 17. listopadu 12, 77146 Olomouc, martina.kilianova@upol.cz</i> 2 <i>Department of Microbiology, the Faculty of Medicine and Dentistry, Palacky University, Hněvotínská 3, 77515 Olomouc</i></p>
17:15 - 17:30	<p>The incorporation of nano-sized particles in aqueous YBCO inks for the production of superconducting coatings using ink-jet printing <u>J. Feys</u>, K. De Keukeleere, M. Meire, J. De Roo, P. Lommens, I. Van Driessche <i>SCRiPTS, Department of Inorganic and Physical Chemistry, Ghent University, Krijgslaan 281, 9000 Ghent, Belgium</i></p>	16:50 - 17:05	<p>Electrospinning: a powerful route for biomimetic scaffolds production D. Iandolo¹, M.L. Moffa², A. Polini¹, D. Pisignano^{1,2,3} 1 <i>NNL, National Nanotechnology Laboratory of CNR-Nanoscienze,</i> 2 <i>Center for Biomolecular Nanotechnologies, Istituto Italiano di Tecnologia @UniLe</i> 3 <i>Dipartimento di Matematica e Fisica "Ennio de Giorgi", Università del Salento</i></p>
		17:05 – 17:20	<p>Tuning of Silica Nanoparticles with porous network structure through modified Stober Method: Drug delivery applications <u>M. Qasim</u>¹, Braj R. Singh¹, A. H. Naqvi¹, P. Paik², and D. Das^{2*} 1 <i>Centre of Excellence in Materials Science (Nanomaterials), Department of</i></p>

			Applied Physics, Z.H. College of Engg. & Tech., Aligarh Muslim University, Aligarh 202002, India 2School of Engineering Sciences and Technology, University of Hyderabad, Hyderabad 500046, India
17:30 – 17:45	Patterned growth of of WOX and WNX nanorods from Au-coated W foil Fang XU ¹ , Amir FAHMI ² , Yimin ZHAO ³ , Yongde XIA ¹ , and Yanqiu ZHU ^{1*} College of Engineering, Mathematics and Physical Sciences, University of Exeter, Exeter EX4 4QF, UK	17:20 – 17:40 Invited Oral	In vitro investigation of functional biomaterial-scaffolds for bone regeneration Maria Chatzinikolaidou Dept. of Materials Science and Technology, University of Crete, Heraklio, Greece Institute of Electronic Structure and Laser (IESL) FORTH, Greece
17:45 - 18:05 Invited Oral	A comprehensive study on the performance of plasmonic organic photovoltaics doped with silver nanoparticles N. Kalfagiannis ¹ , P.G. Karagiannidis ¹ , C. Pitsalidis ¹ , N. T. Panagiotopoulos ² , C. Gravalidis ¹ , S. Kassavetis ¹ , P. Patsalas ³ and S. Logothetidis ¹ 1Laboratory for Thin Films – Nanosystems and Nanometrology (LTFN), Physics Department, Aris-totle University of Thessaloniki, GR-54124, Greece 2University of Ioannina, Department of Physics, GR-45110 Ioannina, Greece 3University of Ioannina, Department of Materials Science and Engineering, GR-45110 Ioannina, Greece	17:40 - 18:00 Invited Oral	Effect of nanocavitation in photocurable Materials for Building up elastic medical devices. W. Meyer ¹ , E. Novosel ² , S.Engelhardt ³ , M. Wegener ¹ , P. Kluger ² , K. Borchers ² , H.Krüger ¹ 1Fraunhofer, Institut of Applied Polymer Reseach IAP, Geiselbergstraße 69, 14476 Potsdam-Golm, Germany 2Fraunhofer, Institute for Interfacial Engineering and Biotechnology IGB, Nobelstr. 12, 70569 Stuttgart, Germany 3Fraunhofer, Institute for Laser Technology ILT, Steinbachstr. 15, 52074 Aachen, Germany
18:05–18:30	Coffee Break-Exhibition-Networking		
Plenary Session (ISFOE12 Symposium and NN12 Conference)			
Chair: Logothetidis S. Room: Alexandros			
	Introduction by Prof. Stergios Logothetidis, NN12 & ISFOE12 Chairman		
18:30 – 19:10 Plenary Talk	Graphene Electronics and Photonics Phaedon Avouris IBM T. J. Watson Research Center, Yorktown Heights, NY 10598, USA		
19:10 – 19:50 Plenary Talk	Design of Nanostructures and Renewable Energy Materials Alex Zunger University of Colorado, Boulder Colorado, USA		
19:50 – 20:30 Plenary Talk	Organic Electronics at the Interface with Life Sciences G. Malliaras Department of Bioelectronics, Ecole Nationale Supérieure des Mines, CMP-EMSE, Gardanne, FRANCE		
	END OF FIRST DAY		
21:00	DRINKS & OFFICIAL DINNER (ISFOE12 & NN12)		

Wednesday 4 July**'Ioannis Vellidis' Congress Centre**

08:00 – All Day		Registration to NN12				
		Keynote Session III (All Workshops of NN12) <i>Room: Philippos</i>		JOINED SESSION OF ISFOE12 SYMPOSIUM & NN12 CONFERENCE on BIOELECTRONICS <i>Room:Alexandros</i>		
09:00 – 09:30 Keynote Talk		Charge transfer interactions of organic molecules Norbert Koch <i>Humboldt-Universität zu Berlin, Institut für Physik, Berlin, Germany</i>				
		Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy <i>Session: Nanoelectronics I</i> <i>Chair: Konofaos N., S. Spiga</i> <i>Room:Philippos</i>		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction <i>Session:Theoretical & Computational Approaches I</i> <i>Chair: Georgiadis T., Polatoglou H.M.</i> <i>Room: Kassandros</i>	Parallel Session Joined Session of ISFOE12 and W3 – Nanomedicine & W4 - Bioelectronics of NN12 <i>Session: Bioelectronics I</i> <i>Chair: Owens R., Nickel B.</i> <i>Room:Alexandros</i>	
09:30-10:00 Invited		Giant Thermoelectric Effect (GTE) in “Graded porous nanostructured” Ther-moelectric Materials R.H. Tarkhanyan and <u>D.G. Niarchos</u> <i>Institute of Materials Science, NCSR “Demokritos”, Athens 15341, Greece</i>	09:30-10:00 Invited	Suppression of Intermixing in Strain-Relaxed Epitaxial Layers <u>P. Kelires</u> , ⁽¹⁾ <u>T. Leontiou</u> , ⁽¹⁾ <u>J. Tersoff</u> <i>(1)Research Unit for Nanostructured Materials Systems, Cyprus University of Technology, P. O. Box 50329, 3603 Lemesos, Cyprus</i> <i>(2)IBM T.J. Watson Research Center, Yorktown Heights, New York 10598, USA</i>	09:30 – 10:00 Invited (Keynote at ISFOE)	Interfacial effects in bioelectronics OFET sensors <u>L. Torsi</u> ¹ , <u>M. Magliulo</u> ¹ , <u>A. Mallardi</u> ² and <u>G. Palazzo</u> ¹ <i>1 Dipartimento di Chimica - Università degli Studi di Bari “A. Moro” – 70126 Bari (Italy)</i> <i>2 CNR-IPCF, Istituto per i Processi Chimico-Fisici – 70126 Bari (Italy)</i>
10:00 – 10:30 Invited		Compact Model of Undoped or Lightly Doped Ultra-scaled Triple-Gate FinFETs Charalampos Dimitriadis <i>Department of Physics,Aristotle University of Thessaloniki, Greece</i>	10:00 – 10:30	Atomistic Design of Ultra-Narrow Silicon Nanowires for Improved Electronic and Thermoelectric Applications <u>N. Neophytou</u> , <u>H. Karamitaheri</u> , <u>H. Kosina</u> <i>Institute for Microelectronics, Technical University of Vienna, Gusshausstrasse 27-29/E360, 1040, Vienna, Austria</i>	10:00 – 10:30 Invited	Chemo and biosensing based on charge detection by organic field effect devices Monia Demelas, Stefano Lai, Andrea Spanu, Massimo Barbaro, Piero Cosseddu, and <u>Annalisa Bonfiglio</u> <i>Dept of Electrical and Electronic Engineering, University of Cagliari, Italy</i>
10:30-10:45		High resistivity Czochralski-silicon using deep level dopant compensation <u>Ahmed Abuelgasim</u> , <u>Kanad Mallik</u> , <u>P. Ashburn</u> , <u>C.H. De Groot</u> <i>Nano Research Group, University of Southampton, Southampton, SO17 1BJ, United Kingdom</i>	10:30-10:45	Modeling the formation of nanogels comprised by dendrimer polyelectrolytes under the influence of varying electrostatic interactions <u>K. Karatasos</u> ¹ , <u>I. Tanis</u> ² <i>Chemical Engineering Dept, Aristotle University of Thessaloniki 54124, Thessaloniki, Greece</i>	10:30 – 10:45	Real-Time Spectroscopic Ellipsometry to Study Protein Adsorption onto Organic Thin Films <u>M. Gioti</u> , <u>V. Karagkiozaki</u> , and <u>S. Logothetidis</u> <i>Department of Physics, Aristotle University of Thessaloniki, Greece</i>
10:45-11:00		Dielectric reliability degradations in rare earth oxides (REOs) based gate stacks grown on Germanium substrates <u>E.K. Evangelou</u> ¹ , <u>M. Shahinur Rahman</u> ^{1,2} , <u>N. Konofaos</u> ³ and <u>A. Dimoulas</u> ⁴ <i>1 Department of Physics, University of Ioannina, 45110-Ioannina, Greece</i>	10:45-11:00	Parameters Affecting Planar Grooved Nanochannel Flows Via Dissipative Particle Dynamics Simulation <u>SD. Kasiteropoulou</u> ¹ , <u>T.E. Karakasidis</u> ² , <u>A. Liakopoulos</u> ³ <i>Hydromechanics and Environmental Engineering Laboratory, School of Engineering, University of Thessaly, 38834 Pedion Areos, Volos, Greece</i>	10:45 – 11:00	Modulation of biofilm formation processes using conducting polymers <u>S. Gomez-Carretero</u> ^{1,3} , <u>K. Persson</u> ^{2,3} , <u>P. Kjäll</u> ^{1,3} , <u>M. Berggren</u> ^{2,3} , <u>A. Richter-Dahlfors</u> ^{1,3} <i>¹Swedish Medical Nanoscience Center, Department of Neuroscience, Karolinska Institutet, Sweden</i> <i>²Department of Science and Technology, Campus Norrköping, Linköpings Universitet, Sweden</i> <i>³Strategic Research Center for Organic</i>

	<p>2 Detector Lab- GSI Helmholtzzentrum Schwerionenforschung, 64291-Darmstadt, Germany</p> <p>3 Department of Informatics, Aristotle University of Thessaloniki, Greece</p> <p>4 MBE Lab. NCSR Demokritos, Aghia Paraskevi, Greece</p>				Bioelectronics (OBOE)
11:00 – 11:30	Coffee Break-Exhibition-Networking				
	<p>Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy</p> <p>Session: Nanoelectronics II</p> <p>Chair: Dimitriadis Ch., Niarchos D.</p> <p>Room:Philippos</p>		<p>Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction</p> <p>Session:Theoretical & Computational Approaches II</p> <p>Chair: Kelires P.</p> <p>Room:Kassandros</p>		<p>Parallel Session</p> <p>Joined Session of ISFOE12 and W3 – Nanomedicine & W4 - Bioelectronics of NN12</p> <p>Session: Bioelectronics II</p> <p>Chair: Bonfiglio A., Gioti M.</p> <p>Room:Alexandros</p>
11:30 – 12.00 Invited	<p>Resistance switching in NiO thin films and nanowires for non-volatile memory applications</p> <p>Sabina Spiga</p> <p>CNR-IMM, Unita di Agrate Brianza, Laboratorio MDM, Italy</p>	11:30 – 12.00 Invited	<p>Atomistic simulations applied to nanometrology</p> <p>H.M. Polatoglou</p> <p>Physics Department, Aristotle University of Thessaloniki, Thessaloniki, GR-54124, Greece</p>	11:30 – 12:00 Invited	<p>Solution-processable organic biosensors</p> <p>Giuseppe Scarpa</p> <p>Institute for Nanoelectronics, Technische Universitat Munchen, Germany</p>
12:00 – 12.30 Invited	<p>Analytical models for the gate tunnelling current in Multi-Gate MOSFETs</p> <p>B. Iñiguez¹, G. Darbandy¹, J. Aghassi², J. Sedlmeir², U. Monga³, I. Garduño⁴, and A. Cerdeira⁴</p> <p>1 Departament d'Enginyeria Electrònica, Elèctrica i Automàtica, Universitat Rovira i Virgili, Spain</p> <p>2 Infineon Technologies AG (now Intel Mobile Communications GmbH), 85579 Neubiberg, Germany</p> <p>3 Department of Electronics and Telecommunication, Norwegian University of Science and Technology, UNIK-University Graduate Center, NO-2007 Kjeller, Norway</p> <p>4 Department of Electrical Engineering, Section of Solid-State Electronics, CINVESTAV-IPN, Mexico D.F., Mexico</p>	12:00 – 12.20 Invited Oral	<p>Dynamic Modeling and Determination of Effective Properties of Magnetolectric Composite Plates</p> <p>A. V. Georgiades^{1,2}, D. A. Hadjiloizi¹, A.L. Kalamkarov³,</p> <p>1Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Lemesos, Cyprus</p> <p>2Research Unit for Nanostructured Materials Systems, Cyprus University of Technology, Lemesos, Cyprus</p> <p>3Department of Mechanical Engineering, Dalhousie University, Halifax, NS, Canada</p>	12:00 – 12:30 Invited	<p>The application of the Organic Electrochemical Transistor for biodiagnostics: integration with cells and enzymes</p> <p>Roisin Owens</p> <p>Dept of Bioelectronics, CMP, ENSMSE, France</p>
12:30 – 12:45	<p>Large Area Nanowire Photodetection Circuitry</p> <p>Erol Ozgur^{1,2}, Ozan Aktas^{1,3}, Mehmet Kanik^{1,2}, Mecit Yaman^{1,4,5}, Mehmet Bayindir^{1,2,3}</p> <p>1UNAM-National Nanotechnology Research Center, 06800, Ankara, Turkey. 2 Institute of Materials Science and Nanotechnology, 06800, Ankara, Turkey. 3Department of Physics, Bilkent University, 06800 Ankara, Turkey 4Ministry of Science, Industry and Technology, 06515 Ankara, Turkey 5Electrical and Electronics Engineering,</p>	12:20 – 12:35 CANCELLED	<p>Molecular Dynamics Simulation of Realistic Nanomachining</p> <p>A. O. Oluwajobi¹, X. Chen²</p> <p>1Centre for Precision Technologies, University of Huddersfield, Huddersfield, HD1 3DH, UK</p> <p>2 Advanced Manufacturing Technology Research Laboratory, General Engineering Research Institute, Liverpool John Moores University, Liverpool L3 3AF, UK</p>	12:30 – 12:45	<p>Plasmonic nanosensors in the detection and remedy of cancer</p> <p>S.Das¹, J.Turunen²</p> <p>Dept of Physics and Mathematics, University of Eastern Finland, Finland</p>

	University of Turkish Aeronautical Association, 06790 Ankara, Turkey				
12:45 – 13:00	Thermal Management at High Transistor Density Semiconductor Devices Ch. Orfanidou and J. Giapintzakis Department of Mechanical and Manufacturing Engineering, University of Cyprus 75 Kallipoleos Avenue, 1678, P.O. Box 20537, Nicosia, Cyprus	12:35 – 12:50	Calculation of gas surface-reaction parameters at SnO2 nanowire surfaces G. Tulzer ¹ , S. Baumgartner ¹ , E. Brunet ¹ , G.C. Mutinati ¹ , S. Steinhauer ¹ , A. Köck ¹ , C. Heitzinger ^{1,2} ¹ AIT Austrian Institute of Technology, Vienna, Austria, gerhard.tulzer.fi@ait.ac.at ² Department of Applied Mathematics and Theoretical Physics (DAMTP), University of Cambridge, Cambridge CB3 0WA, UK	12:45 – 13:00	Fluorescence based biosensors, simultaneous enzyme immobilisation and micro-fabrication using SU-8 resin for fluorescence P.D. van der Wal ¹ , S.D. Psoma ² , N.F. de Rooij ¹ ¹ Institute of Microengineering, Ecole Polytechnique Federale de Lausanne (EPFL), Switzerland ² Dept of Engineering of Informatics and Telecommunications, University of Western Macedonia, Greece
13:00 – 13:15	Thermionic emission as a probe for current enhancement in Multi-Junction (MJ) cells with an embedded superlattice A. Varonides Physics & ECE Department, University of Scranton, Company) 800 Linden Street, LSC 151, Scranton PA, 18510, USA	12:50 – 13:05	Computational studies for free energies of solvation of additives in polymeric nanostructures Tuğba Arzu Özal ¹ , Christine Peter, Berk Hess, Nico F. A. van der Vegt Kadir Has University Cibali, İstanbul		
13:15 – 13:35 Invited Oral	Performance of Optoacoustic Contrast Agents for Molecular Imaging Applications Nikolaos C. Deliolanis, Juan. Salichs, Xose L. Dean Ben, Nicolas Beziere, Vasilis Ntziachristos Institute for Biological and Medical Imaging, Helmholtz Zentrum München and Technische Universität München, Munich, Germany	13:05 – 13:25 Invited Oral	Ballistic transport through quantum wires with scatterers V. Vargiamidis ¹ , V. Fessatidis ² , and H. M. Polatoglou ¹ ¹ Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece ² Department of Physics, Fordham University, Bronx, NY 10458, USA		
13:30 – 15:00	Lunch Buffet Break				
	Poster Session I - Exhibition – Networking Posters of Workshop 1 and Workshop 2(P2-1 to P2-70) at 14:30 – 15:00 Chair: Konofaos N., Malliaras G., Kassavetis S., Porfyraakis K.				
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy Session: Special Workshop “Nanotechnology Innovation for Photovoltaics: Nano4PVs” co-organized with European Commission Projects PV Cluster 3: Third Generation PV cells Chair: B. Fillon, S. Kassavetis Room: Philippos		Keynote Session IV (All Workshops of NN12) Room: Alexandros		
		15:00 – 15:30 Keynote Talk	Engineering Herpes Simplex Virus Vectors Unable to Enter into Neurons for Vaccine, Cancer and Gene Therapy Purposes K. G. Kousoulas, A. David, A. Saied, M. Nadheri, V. N. Chouljenko Division of Biotechnology & Molecular Medicine, Louisiana State University, BioMMED, SVM, LSU, Baton Rouge LA 70803		
			Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials I Chair: Patsalas P., Dimitriadis Ch. Room: Kassandros		Parallel Session Joined Session of W3 – Nanomedicine & W4 – Bioelectronics of NN12 and ISFOE12 Session: Bioelectronics III Chair: Malliaras G., Scarpa G. Room: Alexandros
15:00 – 15:20	Innovative Materials for Future Generation Excitonic Solar Cells TBA	15:30 – 15:45	Epoxy resin-silica nanocomposite coatings with advanced anticorrosive properties P. Spathis, K. Triantafyllidis, P.	15:30 – 15:50 Invited	Magnetic biochip platforms for biomolecular diagnosis and real-time cell analysis A. I. Shoshi ¹ , J. Schotter ¹ , A. Keller ¹ , P. Ertl ¹ , H.

	<p>Project: INNOVASOL Coord: Prof. L. Marchese, Università degli Studi del Piemonte Orientale Amedeo Avogadro, Italy</p>		<p>Giannakoudakis, D. Giliopoulos, G. Zisimou. Dept. of Chemistry, Aristotle University of Thessaloniki, 54124, Thessaloniki, Greece</p>		<p>Brückl¹, M. Meindl², M. Ruehrig³, C. Zilch⁴ 1AIT Austrian Institute of Technology, Donau-City-Strasse 1, 1220 Vienna, Austria; 2Danube Mobile Communications Engineering GmbH & Co KG, Freistädter Straße 400, 4040 Linz, Austria; 3Siemens AG, Günther-Scharowsky-Str. 1, 91058 Erlangen, Germany; 4Magna Diagnostics GmbH, Neumarkt 29-33, 04109 Leipzig, Germany</p>
15:20 –15:40	<p>SANS: Sensitizer Activated Nanostructured Solar Cells A.G. Kontos, P. Falaras Institute of Advanced Materials, Physicochemical Processes, Nanotechnology and Microsystems (IAMPPNM), Division of Physical Chemistry, National Center for Scientific Research "Demokritos", 153 10 Aghia Paraskevi Attikis, Athens, Greece Project SANS Coord: H. Snaith, Department of Physics, University of Oxford, Clarendon Laboratory, Oxford OX1 3PU, England</p>	15:45 – 16:00	<p>Finite Element Modeling of Indentation Testing on Cohesive-Frictional Films E. Sarris¹, G. Constantinides¹ Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Kitiou Kyprianou 45, Lemesos, Cyprus¹</p>	15:50 – 16:05	<p>The Organic Electronic Artificial Neuron: adaptation of a planar deliver technology into an implantable, easily-fabricated in vitro and in vivo system D. T. Simon,¹ A. Richter-Dahlfors,² and M. Berggren¹ ¹ Dept. of Science and Technology, Linköping University, SE-601 74 Norrköping, Sweden ² Dept. of Neuroscience, Karolinska Institutet, SE-171 77 Stockholm, Sweden</p>
		16:00-16:15	<p>Upgrading lime by using nanotechnology products M. Stefanidou Civil Engineering Department, Laboratory of Building Materials, Aristotle University of Thessaloniki</p>		
15:40 - 16:00	<p>Highly Flexible Printed ITO-free OPV Modules Juliane Gabel, Holst Centre / TNO, High Tech Campus 31, Eindhoven, The Netherlands Project: HIFLEX Coord: Jan Kroon, ECN Solar Energy, The Netherlands</p>	16:15– 16:30	<p>Monodisperse titania microspheres via controlled nanoparticle aggregation D. Schunk¹, F. Marlow¹ ¹Max-Planck-Institut fuer Kohlenforschung Kaiser-Wilhelm Platz 1, 45470 Muelheim an der Ruhr, Germany</p>	16:05– 16:20	<p>Localized fluorescence enhancement of fluorescently labelled DNA strands over gold nanovoids K. Pechstedt¹, T. Melvin¹, J.J. Baumberg² ¹Optoelectronics Research Centre, University of Southampton, Highfield, Hampshire, SO17 1BJ, U.K. e-mail: kxp@orc.soton.ac.uk ² NanoPhotonics Centre, Cavendish Laboratory, University of Cambridge, JJ Thomson Avenue, Cambridge, CB3 0HE, U.K.</p>
16:00-16:20	<p>Smart light collecting system for the efficiency enhancement of solar cells David Gutiérrez-Tauste Project EPHOCELL, Coord: Laurent Aubouy, LEITAT, Terrassa, Spain</p>	16:30– 16:45	<p>Development of inorganic nano-structured materials: From ancient Greek ceramics to modern Advanced materials C. Andreouli, S. Pavlidou MIRTEC S.A.- Materials Industrial Research and Technology Development Centre A' industrial area of Volos, P.O.Box 13, GR 38500 Volos, Greece"</p>	16:20– 16:35	<p>Electrochemical devices based on biocompatible electrospun membranes A.C. Baptista¹, J.P. Neto¹, J.I. Martins², E. Fortunato¹, R. Martins¹, J.P. Borges¹ and I. Ferreira¹ ¹ CENIMAT/I3N, Departamento de Ciência dos Materiais, Faculdade de Ciências e Tecnologia (FCT), Universidade Nova de Lisboa, 2829-516 Caparica, Portugal. ² Universidade do Porto, Faculdade de Engenharia, Departamento de Engenharia Química, 4200-465 Porto, Portugal.</p>
16:20 - 16:40	<p>Ensuring Stability in Organic Solar Cells Speaker TBA Project: ESTABLIS, Coord: Roger Hiorns, CNRS, Pau University, PAU, France</p>	16:45– 17:00	<p>Wear behaviour of Nanocrystalline Ni-W coating C.N. Panagopoulos¹, G.D. Plainakis, P.G. Orfanos ¹National Technical University of Athens, Zografos, Laboratory of Physical Metallurgy, 15780, Athens, Greece</p>	16:35– 16:50 Cancelled	<p>Aptamers for diagnostic J.J. Toulmé¹, E. Dausse¹, C. Di Primo¹, L. Azéma¹, S. Da Rocha Gomes² ¹ ARNA laboratory, Inserm U869, University of Bordeaux, ² Novaptch European Institute of Chemistry and Biology, 2 rue Robert Escarpit, 33607 Pessac, France</p>

		17:00– 17:15 Cancelled	Flexible and Mechanically Stable Antireflective Coatings from Nanoporous Organically Modified Silica Thin Films Hulya Budunoglu ^{1,2} , Adem Yildirim ^{1,2} , Mehmet Bayindir ^{1,2,3} <i>1UNAM-National Nanotechnology Research Center, 06800 Ankara, Turkey</i> <i>2Institute of Materials Science and Nanotechnology, 06800 Ankara, Turkey</i> <i>3Department of Physics, Bilkent University, Ankara 06800, Turkey</i>	16:50 – 17:10 Invited Oral	State-of-the-art in Organic Bioelectronics and Nanomedicine targeting atherosclerosis <u>V.Karagkiozaki¹, S.Logotheidis¹</u> <i>1 Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, GR-54124, Greece</i>
16:40 - 17:30	Questions & discussion	17:15– 17:30	Effect of Polymer Gel Concentration on CdS Nanowires Prepared Using a Solvothermal Route Iraj Kazeminezhad, Negar Hekmat <i>Physics Department, Shahid Chamran University, Ahvaz, Iran</i>	17:10 – 17:25	Plasmonics for Treatment of Atherosclerosis <u>A.N. Kharlamov¹, A.N. Perrish¹, J.L Gabinsky¹</u> <i>Ural Institute of Cardiology, 78A, 8th March street, Yekaterinburg 620144, Russia</i>
17:15 –18:00	Coffee Break-Exhibition-Networking				
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy Session: Plasmonics & Photovoltaics II Chair: Rusu M., Kassavetis S. <i>Room: Philippos</i>		Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials II Chair: Konofaos N., Gravalidis X. <i>Room: Kassandros</i>		Parallel Session Joined Session of W3 – Nanomedicine & W4 – Bioelectronics of NN12 and ISFOE12 Session: Bioelectronics IV Chair: Owens R., Shoshi A.I. <i>Room:Alexandros</i>
18:00-18:30 Invited	Designing plasmonic nanoparticles for light trapping applications in solar cells Fiona Beck <i>Institut de Ciències Fotòniques, Barcelona, Spain</i>	18:00 – 18:20 Invited Oral	Pulsed UV Laser Annealing for nanoengineering AIN:Ag thin films with enhanced Surface Plasmon Resonance <u>D.C. Koutsogeorgis¹, A. Siozios², E. Lidorikis², G.P.Dimitrakopoulos³, Th. Kehagias³, H. Zoubos², Ph. Komninou³, W.M. Cranton¹, C. Kosmidis⁴, and P. Patsalas²</u> <i>1Nottingham Trent University, School of Science and Technology, NG11 8NS, Nottingham, UK; 2University of Ioannina, Department of Materials Science and Engineering, GR-45110 Ioannina, Greece; 3Aristotle University of Thessaloniki, Department of Physics, GR-54124 Thessaloniki, Greece; 4University of Ioannina, Department of Physics, GR-45110 Ioannina, Greece</i>	17:45 – 18:05 Invited Oral	Organic field-effect-transistors for biosensing <u>B. Nickel, M. Göllner, G. Glasbrenner, F. Werkmeister</u> <i>Department of Physics, Ludwig-Maximilians-University & CeNS, Geschwister-Scholl-Platz 1, D-80539 München, Germany</i>
18:30 – 18:50 Invited Oral	Revealing the nanomorphology of organic semiconductor layers with plasmon contrast in the TEM <u>Wolfram Schindler</u> , Markus Wollgarten, Konstantinos Fostiropoulos <i>Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany</i>	18:20 – 18:35	Helium ion beam milling to create nano-structured domain wall magnetoresistance spin-valve Yudong Wang, S. A. Boden, D. M. Bagnall, H. N. Rutt, C. H. de Groot <i>School of Electronics and Computer Science, University of Southampton, Southampton SO17 1BJ, UK</i>	18:05 – 18:20	Conductivity and proximity induced superconductivity of DNA molecules <u>A. Kasumov¹, A.D. Chepelianski¹, D. Klinov², S. Guéron¹, O. Pietrement³, S. Lyonnais⁴ and H.Bouchiat¹</u> <i>1 Université Paris-Sud, CNRS, UMR 8502, F-91405 Orsay, France 2 Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Miklukho-Maklaya 16/10, Moscow 117871, Russia 3 UMR 8126 CNRS-IGR-UPS, Institut Gustave-Roussy, 39 rue Camille Desmoulins, 94805 Villejuif Cedex, France 4 Museum National d'Histoire Naturelle, CNRS, UMR7196, Inserm, U565, 43 rue Cuvier, 75005 Paris, France</i>

18:50 – 19:05	<p>Plasmonic nano-grating structures for organic photovoltaics Inho Kim, Doo Seok Jeong, Taek Seong Lee, Wook Seong Lee, Kyeong-Seok Lee <i>Electronic Materials Research Center, Korea Institute of Science and Technology Hwarangno 14 Gil-5, Seongbuk-gu, Seoul 136-791, Republic of Korea</i></p>	18:35 – 18:50	<p>Strongly Fluorescent Quaternary Cu-In-Zn-S Nanocrystals Prepared from Cu_{1-x}InS₂ Nanocrystals by Partial Cation Exchange L. De Trizio^{1,2}, M. Prato¹, A. Genovese¹, A. Casu¹, M. Povia¹, M. Alcocer^{3,4}, C. D' Andrea^{3,4}, F. Tassone³, L. Manna¹ <i>1Nanochemistry Dept. Istituto Italiano di Tecnologia Via Morego 30, 16163 Genova, Italy 2Department of Materials Science, University of Milano Bicocca Via Cozzi 53, 20125 Milano, Italy 3Center for Nano-Science and Technology @POLIMI, Istituto Italiano di Tecnologia via G. Pascoli 70/3, 20133 Milano, Italy 4Department of Physics, Politecnico di Milano, Piazza L. Da Vinci 32, 20133 Milano, Italy</i></p>	18:20– 18:30	Break
19:05 – 19:20	<p>New frequency generation with plasmonic nanoantenna on highly nonlinear As₂Se₃ glass substrate Bihter Daglar^{1,2}, Huseyin Duman^{1,2}, Murat C. Kilinc³, Tural Khudiyev^{1,2}, Mehmet Bayindir^{1,2,4} <i>1UNAM-National Nanotechnology Research Center, Bilkent University, 06800 Ankara, Turkey 2Institute of Materials Science and Nanotechnology, Bilkent University, 06800 Ankara, Turkey 3Aselsan, PK 30, Etilik, 06011 Ankara, Turkey 4Department of Physics, Bilkent University, 06800 Ankara, Turkey</i></p>	18:50 – 19:05	<p>Deposition of Photocatalytically Active TiO₂ Thin Films from Aqueous Precursor Solutions and Nanoparticle Containing Suspensions M. Arin, A. P. Lommens, I. Van Driessche <i>SCRiPTS, Department of Inorganic and Physical Chemistry, Ghent University, Krijgslaan 281 (S3), 9000 Ghent, Belgium</i></p>	18:30 – 20:00	<p>Special Session I: 'Clinical Hurdles in diagnosis and treatment of atherosclerosis: Waiting for nanomedical solutions' co-organized with the Atherosclerosis Society of Northern Greece (EABE)</p> <p><i>Chairs: A. Tavidou, V. Karagkiozaki</i></p> <p>1. "Novel insights in the pathophysiology of atherosclerosis." K. C. Koskinas, MD, MSc, FESC 3rd Cardiology, Dept., Hippokrateion Hospital, Thessaloniki, Greece</p> <p>2. 'Identification of the vulnerable atherosclerotic plaque. A challenge for new technologies' G. Chalikias MD, PhD Lecturer in Cardiology Democritus University of Thrace</p>
		19:05 – 19:20	<p>Suspensions of nanoparticles in ionic and nonionic liquids for cooling applications S.M.S. Murshed, C.A. Nieto de Castro, M.J.V. Lourenço and F.J.V. Santos <i>Centre for Molecular Sciences and Materials, Faculty of Sciences of the University of Lisbon Campo Grande, 1749-016 Lisbon, Portugal</i></p>		
19:20– 19:40 Invited	<p>Deconstructing multi-junction (MJ) cells for higher voltage: A case for flat-geometry (MJ) photovoltaics A. C Varonides <i>Physics & ECE Department, University of Scranton, PA, USA</i></p>	19:20 - 19:35	<p>Nanoscale Aspects of Martensitic Transformation in Copper Based Shape Memory Alloys O. Adiguzel <i>Firat University, Department of Physics, 23169, Elazig – Turkey</i></p>	18:30 – 20:00	<p>Special Session I: 'Clinical Hurdles in diagnosis and treatment of atherosclerosis: Waiting for nanomedical solutions' co-organized with the Atherosclerosis Society of Northern Greece (EABE)</p> <p><i>Chairs: A. Tavidou, V. Karagkiozaki</i></p> <p>3. 'Therapeutic strategies for the management of atherosclerosis' Dr A. Tavidou Lab. of Pharmacology, Medical School Democritus University of Thrace</p> <p>4. 'Nanomedicine for atherosclerosis treatment: A science fiction or a true story?' Dr. V. Karagkiozaki Head of Nanomedicine group of LTFN lab, AUTH</p> <p>DISCUSSION</p>
		19:35 - 19:50	<p>Growth and X-ray peak broadening studies of Zn_{1-x}Mg_xO nanoparticles Ramin Yousefi, A. Khorsand-Zak <i>Department of Physics, Islamic Azad University (I.A.U), Masjed-Soleiman Branch Masjed-Soleiman, Iran</i></p>		
19:40– 20:00 Invited	<p>Endohedral fullerenes: a probe for chemistry at the nanoscale K. Porfyrakis <i>Department of Materials, University of Oxford, Parks Road, Oxford, OX1 3PH, U.K.</i></p>	19:50 - 20:05	<p>Electrochemically synthesis of Cu-ZnO nanostructure films Farid Jamali- Sheini <i>Department of Physics, Ahwaz Branch, Islamic Azad University, Ahwaz, Iran</i></p>		

		20:05 - 20:20	Chitosan nanoparticles fabrication for whey processing M. Sharifzadeh Baei ^{1*} , M.J. Hosseinzadeh ¹ , H.Younesi ² ¹ Islamic Azad University, Ayatollah Amoli Branch, Amol, IRAN ² Department of Environmental Science, Faculty of Natural Resources and Marine Sciences, Tarbiat Modares University, Noor, Iran		
END OF SECOND DAY					
20:30	PARTY (ISFOE12 & NN12)				

Thursday 5 July 'Ioannis Vellidis' Congress Centre					
08:00 – All Day	Registration to NN12				
	Keynote Session V (All Workshops of NN12) <i>Room:Alexandros</i>				
09:00 – 09:30 Keynote Talk	Soliciting nanotechnology for stem cell-based treatments of teeth and other tissues of the craniofacial complex. Thimios Mitsiadis <i>Institute of Oral Biology, Faculty of Medicine, Uni of Zurich, Switzerland</i>				
	Parallel Session W1 – Plasmonics, Nanoelectronics & Clean Energy Session: Special Workshop “Nanotechnology Innovation for Photovoltaics: Nano4PVs” <i>co-organized with European Commission Projects PV Cluster 3: Third Generation PV cells</i> Chair: S. Logothetidis, B. Fillon <i>Room:Alexandros</i>			Parallel Session W3 – Nanomedicine Session: Nanomedicine tools for clinical applications Chair: Kousoulas K.G., Krol S. <i>Room:Philippos</i>	
09:30-09:50	Clean4Yield: Contamination and defect control for increased yield for large scale R2R production of OPV and OLED Juliane Gabel <i>Holst Centre / TNO, High Tech Campus 31, Eindhoven, The Netherlands</i> Project: Clean4Yield Coord: Ronn ANDREISSEN TNO, The Netherlands	09:30-09:50 Invited		Biocompatible 2D and 3D Polymeric Scaffolds for Medical Devices- Nanomedicine tools for clinical applications – Masaru Tanaka Yamagata Uni, Japan	
09:50 – 10:10	ROI To Roll production of Organic Tandem cells Rémi de Bettignies CEA –INES, 50 avenue du lac Léman,73377 Le Bourget du Lac, France Project ROROT Coord: R. de Bettignes	09:50 – 10:05		Lessons learned in the toxicity testing of nanoparticles E. Fröhlich ¹ and E. Roblegg ² ¹ Center for Medical Research (Medical University of Graz) Stiftingtalstr. 24, 8010 Graz, Austria and ² Institute of Pharmaceutical Sciences-Pharmaceuticals Technology, Karl-Franzens-University of Graz, Humboldtstraße 46, 8010 Graz, Austria	
10:10-10:30	Sustainable Novel Flexible Organic Watts Efficiency Reliable TBA Project: SUNFLOWER Coord: Giovanni Nisato, CSEM, Swiss	10:05-10:20		Nano-Silver-System-Technology: Product-Developments and Applications in Nano-Medicine H. Schmid Fraunhofer-Institute for Chemical Technology Joseph-von-Fraunhofer-Str. 7, 76327 Pfinztal, Germany	

10:30-10:50	Efficient, low-cost, stable tandem organic devices Tom Aernouts <i>Organic Photovoltaics, IMEC, Kapeldreef 75, B-3001 Leuven, Belgium</i> Project X10D Coord: Tom Aernouts	10:20-10:35	Hybrid Ceramo-Polymeric Modified Dental Implants with Improved Biomimetic Characteristics A. Apicella ¹ , R. Aversa ² <i>Dept. of Architecture, School of Design for Innovation, Second University of Naples, via San Lorenzo Aversa (CE) Italy</i>
		10:35 – 10:50	Biomechanical Properties of Human Anterior Lens Capsule: an experimental study with Atomic Force Microscopy Konstantinos T Tsaousis ^{1, 2} , Panagiotis Karagiannidis ¹ , Varvara Karagkiozaki ¹ , Ioannis T Tsinopoulos ² , Stavros A Dimitrakos ² , Stergios Logothetidis ¹ <i>1 Nanomedicine group, Laboratory of "Thin Films - Nanosystems & Nanometrology (LTFN)" Physics Department Aristotle University of Thessaloniki, Greece</i> <i>2 2nd Department of Ophthalmology, Aristotle University of Thessaloniki, Papageorgiou General Hospital</i>
10:50 - 11:30	Questions & discussion	10:50 -11:05	Development of Mucus Permeating Nanoparticulate Drug Delivery Systems O. Kammona ² , K. Karidi ² , T. Karamanidou ^{1,2} , E. Samaridou ^{1,2} , C. Kiparissides ^{1,2} <i>1 Department of Chemical Engineering, Aristotle University of Thessaloniki, P.O. Box 472, 54124 Thessaloniki, Greece</i> <i>2 Chemical Process Engineering Research Institute, Centre for Research and Technology Hellas, P.O. Box 60361, 57001 Thessaloniki, Greece</i>
11:00 –11:30 Coffee Break-Exhibition-Networking POSTER SESSION: All participants of Poster Session I should remove their Posters from the NN12 Poster Area. All participants of Workshop 3, Workshop 4 and Workshop 2 (P2-71 to P2-130) should place their posters up to the NN12 Poster Area (Poster Session II).			
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Graphene & Nanocarbon I Chair: Porfyra K., Papagelis K. Room: <i>Alexandros</i>		Parallel Session W3 – Nanomedicine Special Session II: Regenerative & Nanomedical Strategies Chair: T.Mitsiadis, V.Karagkiozaki Room: <i>Philippos</i>
11:30 – 11.50 Invited Oral	Molecular Nanostructures inside Single-Walled Carbon Nanotubes Toshiya Okazaki <i>Nanotube Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba 305-8565, Japan</i>	11:30 – 13.00 Round Table	Regenerative and Nanomedical strategies for cartilage regeneration towards Osteoarthritis treatment' co-organized by NanoArthroChondros project Chairs: T.Mitsiadis, V.Karagkiozaki <ol style="list-style-type: none"> 1. T.Mitsiadis, <i>Institute of Oral Biology, Faculty of Medicine, Uni of Zurich, Switzerland</i> Back to the future: "And if it was to redo everything? The giant steps of nanodentistry" 2. T.Choli-Papadopoulou, <i>Dept. of Chemistry, AUTH, Greece</i> How the biofunctionalization of scaffolds approaches chondrocyte formation 3. I.Missirlis, <i>Lab of Biomechanics & Biomedical Engineering, Uni of Patras, Greece</i> The influence of mechanical cues on endothelial response in a bioreactor

			<p>4. P.Kavatzikidou, LTFN, AUTH, Greece Nanomaterials for Orthopaedic and Cartilage applications</p> <p>5. F.Sayegh, Papageorgiou University Hospital, AUTH, Greece Cartilage Regeneration (Strategies related to NanoMedicine)</p>
			DISCUSSION
11:50 – 12.10 Invited Oral	<p>Laser assisted photochemical modification of graphene E. Stratakis^{1,2}, K. Savva^{1,2}, M. Stylianakis^{2,3} C. Petridis³, P. Tzanetakis, C. Fotakis^{1,2} E. Kymakis³</p> <p>1. <i>Institute of Electronic Structure and Laser, Foundation for Research & Technology Hellas, (IESL-FORTH), P.O. Box 1527, Heraklion 711 10, Greece.</i></p> <p>2. <i>University of Crete, Heraklion 714 09, Greece.</i></p> <p>3. <i>Center of Materials Technology & Photonics, Technological Educational Institute of Crete, Heraklion, 710 04, Crete, Greece.</i></p>	13:00 – 13:15	<p>Novel Osteochondral Grafts for the Treatment of Cartilage Defects C. Kiparissides^{1,2}, O. Kammona², V. Bourganis^{1,2}</p> <p>1 <i>Department of Chemical Engineering, Aristotle University of Thessaloniki, P.O. Box 472, 54124 Thessaloniki, Greece</i> 2 <i>Chemical Process Engineering Research Institute, Centre for Research and Technology Hellas, P.O. Box 60361, 57001 Thessaloniki, Greece</i></p>
12:10 – 12:25	<p>Impact of Sonication Time on the Morphology of Graphene Sheet Shou Tsai, Hoang-Jyh Leu, Ping-Cheng Hsu, Ting-An Lin, Yun-Man Lee</p> <p><i>Department of Fiber and Composite Materials, Feng Chia University, 100 Wen-Hua Rd., Taichung 40724, Taiwan</i></p>		
12:25 – 12:40	<p>FeCl₃ intercalated few-layer graphene as a transparent conductor I. Khrapach, E. Withers, T. Bointon, D. Polyushkin, W. Barnes, S. Russo, M.F. Craciun</p> <p><i>Centre for Graphene Science, University of Exeter Physics building, Stocker Road, Exeter, UK, EX4 4QL</i></p>	13:15 – 13:30	<p>Targeted Photothermally Controlled Drug Delivery For Treatment of Rheumatoid Arthritis Sun-Mi Lee¹, Hyung Joon Kim¹, You-Jung Ha², Young Nyun Park³, Soo-Lon Lee², Yong-Beom Park², Kyung-Hwa Yoo^{1,4}</p> <p>1 <i>Graduate Program for Nanomedical Science and Technology, Yonsei University, Seoul 120-749, Korea</i> 2 <i>Division of Rheumatology, Department of Internal Medicine, Institute for Immunology and Immunological Disease, College of Medicine, Yonsei University, Seoul</i></p>
12:40 – 12:55	<p>Novel 3D Graphene-Based Materials Prepared by Chemical Vapor Deposition: Process Development and Production Scaling-Up D. Stolyarov, E. Polyakova, J. Zhang, C. McCaren</p> <p><i>Graphene Laboratories Inc. 4603 Middle Country Rd. 125, Calverton, NY 11933, USA</i></p>		
12:55 – 13:15 Invited Oral	<p>Optical properties of graphene and graphene/metal nanostructures Eleftherios Lidorikis</p> <p><i>Department of Materials Science and Engineering, University of Ioannina, Ioannina, Greece</i></p>	13:30 – 13:45	<p>Fabrication, characterization and porosity analysis of a scaffold based on a standing fibrin film M. Barbalinardo^{1,2}, F. Valle¹, B. Chelli^{1,3}, E. Bystrenova¹, G. Foschi¹ and F. Biscarini¹</p> <p>1. <i>Consiglio Nazionale delle Ricerche (Istituto per lo Studio dei Materiali Nanostrutturati) (CNR-ISMN), via Gobetti 101, 40129 Bologna, Italy</i> 2. <i>Università di Bologna "Alma Mater Studiorum" via Zamboni 33, 40126 Bologna, Italy</i> 3. <i>Nano4bio S.R.L., viale G.</i></p>
13:30 – 15:00	Lunch Buffet Break		
	Poster Session II - Exhibition – Networking		
	Posters of Workshop 2 (P2-71 to P2-130), Workshop 3 and Workshop 4 at 14:30 – 15:00		
	Chair: Anastasiadis S., Tagmatarchis N., P. Kavatzikidou		
	Keynote Session VI (All Workshops of NN12)		
	Room: Alexandros		

15:00 – 15:30 Keynote Talk	All the appropriate signals are necessary for engineering proper tissues Ioannis (Yannis) Missirlis <i>Lab of Biomechanics & Biomedical Engineering, Uni of Patras, Greece</i>		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Graphene & Nanocarbon II Chair: Tagmatarchis N., Tsetseris L. <i>Room:Alexandros</i>		Parallel Session W3 – Nanomedicine Session: In- vitro and In-vivo Nanodiagnostics Chair: Missirlis I., Tanaka M. <i>Room: Philippos</i>
15:30 – 15:50 Invited Oral	Growth, doping, and functionalization of graphene: unraveling details with first-principles calculations L. Tsetseris ^{1,2} , S. T. Pantelides ^{2,3,4} <i>1 Department of Physics, National Technical University of Athens, 15780 Athens, Greece</i> <i>2Department of Physics and Astronomy, Vanderbilt University, Nashville, TN 37235, USA</i> <i>3Department of Electrical Engineering and Computer Science, Vanderbilt University, Nashville, TN 37235, USA</i> <i>4Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA</i>	15:30 – 15:50 Invited Oral	Synthesis, Functionalization, and Biological Sensing Applications of ZnSe Nanocrystals T. J. (Lakis) Mountziaris <i>Department of Chemical Engineering, University of Massachusetts, USA</i>
15:50 –16:10 Invited Oral	Solution Processable Graphene Derivatives in Organic Photovoltaics E. Kymakis ¹ , M.M. Stylianakis ¹ , E. Koudoumas ¹ , S.H. Anastasiadis ² , E. Stratakis ² <i>1Center of Materials Technology & Photonics, Technological Educational Institute (TEI) of Crete, Heraklion 71004 Crete, Greece</i> <i>2 Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology-Hellas (FORTH), Heraklion, 71110 Crete, Greece</i>	15:50 –16:05	Silica-encapsulated Fluorescent Protein for in vivo Bioimaging A. Cao, Y. Yang, H. Wang <i>Institute of Nanochemistry and Nanobiology, Shanghai University Shanghai, China</i>
		16:05 - 16:20	In vivo imaging of nanoparticles for diseases diagnosis and therapy using radiolabelling techniques G. Loudos ¹ , D. Psimadas ² , T. Tsotakos ³ , E. FragoGeorgeji ¹ <i>Department of Medical Instruments Technology, Technological Educational Institute of Athens, Greece</i>
16:10 - 16:25	Hybrid PANI/CNT Nano-composites Prepared by an Inverse Emulsion Polymerization Technique R. Suckeveriene, G. Mechrez, and M. Narkis <i>Department of Chemical Engineering, Technion-IIT Haifa, Israel, zip code 32000</i>	16:20 - 16:35	How to measure Nanoparticles Size Distribution Luigi Calzolari, Douglas Gilliland, and François Rossi <i>European Commission - DG Joint Research Centre. Institute for Health and Consumer Protection Ispra (VA), Italy</i>
16:25 -16:40	Investigation of the optical and electrical characteristics of a combination of InP/ZnS-quantum dots with MWCNTs in a PMMA matrix G. Landi ¹ , M. Henninger ¹ , A. De Girolamo del Mauro ² , C. Borriello ² , T. Di Luccio ² , H.C. Neitzert ¹ <i>1 DIEI, Salerno University, Via Ponte Don Melillo 1, 84084 Fisciano (SA), Italy</i> <i>2 ENEA C.R. Portici, Loc. Granatello,, 80055 Portici (NA), Italy</i>	16:35-16:50	Protein arrays using nanoparticles and nanostructures for improved biomarker diagnostics C. Preininger, U. Sauer, P. Buchegger, J. Bawitsch, A. Salibasic, H. Herzog <i>AIT Austrian Institute of Technology, Health & Environment Department / Bioresources Konrad-Lorenz-Str. 24, 3430 Tulln, Austria</i>
16:40 - 16:55	Purification and Deposition of Single-Walled Carbon Nanotubes for Conducting Thin-Films M. D. Lay ¹ , P. Vichchulada ² , N. P. Bhatt ³ , D. Ashegali ⁴ <i>Department of Chemistry, University of Georgia 1001 Cedar St, Athens, GA, 30602, U.S.A</i>	16:50 - 17:05	Charge specific CdSe/ZnS quantum dots effect on amyloid fibrillization of various peptides and proteins in physiological conditions S. Poly ¹ , F. Goñi ² <i>1 CIC nanoGUNE Consolider, Tolosa Hiribidea 76, San Sebastián, Spain</i> <i>2 Unidad de Biofísica CSIC-UPV/EHU Barrio Sarriena s/n. Leioa, Spain"</i>
16:55 – 17:25 Invited	Magnetotransport in periodically modulated bilayer graphene Panagiotis Vasilopoulos ¹ , M. Zarenia ² , and F. M. Peeters ² <i>¹Concordia University, Department of Physics, 7141 S herbrooke Ouest, Montreal, Canada H4B 1R6</i>	17:05 - 17:20	Penetratin-induced transdermal delivery from HII mesophases of sodium diclofenac Marganit Cohen-Avrahami, Dima Libster, Abraham Aserin, Nissim Garti Casali <i>institute for applied Chemistry, The Hebrew University, Jerusalem 91904, Israel</i>

	² <i>Departement Fysica, Univ. of Antwerp, Groenenborgerlaan 171, B-2020 Antwerpen, Belgium</i>		
17:25 - 17:45 Invited Oral	Harvesting graphene's properties for nanoelectronics. George Deligiorgis <i>Laboratory for analysis and architecture of Systems, National Center of Scientific Research (LAAS-CNRS), Toulouse, France</i>	17:20 - 17:40 Invited Oral	Applications of Scanning Probe Microscopy for Nanotoxicity, Pathology and Medical Diagnostics Gerald Kada ¹ , Constanze Lamprecht ² , Andreas Ebner ² , Hans-Peter Huber ³ , René Silye ⁴ , Kurt Schilcher ³ , Ferry Kienberger ¹ , Peter Hinterdorfer ² <i>1Agilent Technologies Austria, Mooslackengasse 17, 1190 Vienna, Austria 2University of Linz, Institute for Biophysics, Altenbergerstr. 69, 4040 Linz, Austria 3University of Applied Sciences, Medical Engineering, Gamisonstr. 21, 4020 Linz, Austria 4Nerve Clinic Linz, Department of Pathology, Wagner-Jauregg-W. 15, 4020 Linz, Austria</i>
17:45 –18:00	Coffee Break-Exhibition-Networking		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Graphene & Nanocarbon III Chair: Anastasiadis S., Lidorikis E. <i>Room:Alexandros</i>		Parallel Session W3 – Nanomedicine Special Session III: Clinical Applicability of Nanomedicine Chair: Komvopoulos K <i>Room:Philippos</i>
18:00 - 18:30 Invited	Nanoporous Membranes And CNT Arrays: Synthesis And Applications Nick Kanellopoulos <i>Institute of Physical Chemistry (IPC), NCSR Demokritos, Greece</i>	18:00 -18:20 Invited	Detecting cancer at nanoscale: multimodal nanotech-enabled tools for malignant disease diagnostics Yuri Volkov <i>Dept of Clinical Medicine, Trinity College Dublin, Institute of Molecular Medicine, Ireland</i>
18:30 – 18:50 Invited Oral	The effect of strain on single and bilayer graphene K. Papagelis ^{1,2} , O. Frank ³ , G. Tsoukleri ² , J. Parthenios ² and C. Galiotis ^{1,2} <i>1Materials Science Department, University of Patras, Patras, Greece 2Institute of Chemical Engineering and High Temperature Chemical Processes, Foundation of Research and Technology-Hellas (FORTH/ICE-HT), Patras, Greece 3J. Heyrovsky Institute of Physical Chemistry of the AS CR, v.v.i., Prague 8, Czech Republic</i>	18:20 – 18:35	Magnetically Active Polymeric Filter for Circulating Tumor Cell Separation N. Kataeva ¹ , Markus Gusenbauer ² , Thomas Schrefl ² , H. Brueckl ¹ <i>1AIT Austrian Institute of Technology, Health & Environment Department, Donau-City-Strasse 1, 1220 Vienna, Austria 2St. Poelten University of Applied Sciences, St.Poelten, Austria</i>
18:50 – 19:05	Thermal Properties on the swelling of PAAm- MWNT Composite Gels via Fluorescence Technique G. A. Evingür ¹ , Ö. Pekcan ² <i>1Piri Reis University, 34940, Tuzla, İstanbul, Turkey 2Kadir Has University, 34083, Cibali, İstanbul, Turkey</i>	18:35 – 18:50	Water Soluble Iron Oxide Nanocubes with High Values of Specific Absorption Rate for Cancer Cell Hyperthermia Treatment Pablo Guardia ¹ , Riccardo Di Corato ^{1,2} , Lenaic Lartigue ³ , Claire Wilhelm ³ , Ana Espinosa ⁴ , Mar Garcia-Hernandez ⁴ , Florence Gazeau ³ , Liberato Manna ¹ and Teresa Pellegrino ^{1,2} <i>1 Istituto Italiano di Tecnologia, via Morego 30, 16163 Genova, Italy 2 National Nanotechnology Laboratory of CNR-NANO, via per Arnesano km 5, 73100 Lecce, Italy 3 Laboratoire Matière et Systèmes Complexes (MSC), UMR 7057, CNRS and Université Paris Dider</i>
19:05 – 19:20	Epoxy resins reinforced with carbon nanotubes in repair and strengthening of concrete members T.C. Rousakis ¹ , K.B. Kouravelou ² , T.K. Karachalios ² <i>1Laboratory of Reinforced Concrete, Department of Civil Engineering, Democritus University of Thrace (DUTH), 67100 Xanthi, Greece 2Nanothinx S.A., Rion – Patras 26504, Greece</i>	18:50 – 19:00	Break

19:20 – 19:35	<p>Thermal and optical characterization of methacrylate-based polymers with embedded carbon nanotubes M. Nestoros¹, I. Savva², T. Krasia², N. C. Papanicolaou³, A. Othonos⁴ and C. Christofides⁴ ¹Department of Electrical & Computer Engineering, University of Nicosia, P.O. Box 24005, 1700 Nicosia, Cyprus, ²Department of Mechanical and Manufacturing Engineering, University of Cyprus, P. O. Box 20537, 1678 Nicosia, Cyprus ³Department of Computer Science, University of Nicosia, P.O. Box 24005, 1700 Nicosia, Cyprus ⁴Department of Physics, University of Cyprus Nicosia, P.O. Box 20537, 1678 Nicosia, Cyprus</p>		
19:35 – 19:50	<p>The Dispersion Of Multi-Walled Carbon Nanotubes In Polyolefines Probed By Raman Spectroscopy G. Bounos¹, K.S. Andrikopoulos¹, G. Lainioti^{1,2}, J.K. Kallitsis^{1,2}, T.K Karachalios³, K.B Kouravelou³, G.A. Voyiatzis¹ ¹FORTH / Institute of Chemical Engineering Sciences (ICE-HT), P.O. Box 1414, GR 265 04 Patras, Greece ²Department of Chemistry, University of Patras, GR 265 04 Patras, Greece ³Nanothinx S.A., Patras, Greece</p>	19:00 – 20:30	<p>Round Table on Clinical Appicability of Nanomedicine Chairs: V.Karagkiozaki, H. J. Mesel Participants of the panel: E.Nikolousi, S.Krol, M.Nikolousis, P. Selviaridis, I. Komvopoulos, G. Kousoulas, T. Mitsiadis, M.Foldvari, S. Moya, E.Fröhlich, A.N. Kharlamov</p> <p>E.Nikolousi , “Nanoreprotox study: embryotoxic agents passing the placenta barrier and inducing birth defects” P. Selviaridis, “Nanotecnology in neurosurgery” E.Fröhlich , “Toxicological issues in nanomedicine” A.N. Kharlamov, "Cutting edge progress of technology: bioresorbable scaffolds and nanomedicine for atheroregression" S. Moya, “HINAMOX - European project that tests the toxicity of metal oxide nanoparticles”</p>
19:50– 20:05	<p>Photoluminescence Enhancement of Single Wall Carbon Nanotubes in Organic Solutions by Polymer Addition R.N. Arif¹, C. Mou¹, Yu.P. Piryatinski², A. Verbitsky², A. Pud³, <u>A. G. Rozhin¹</u> ¹Electronic Engineering, ¹School of Engineering and Applied Science Aston University, Aston Triangle, Birmingham, B4 7ET, UK ² Institute of Physics, National Academy of Sciences of Ukraine, Nauky av. 46, Kyiv 03028, Ukraine ³ Institute of Bioorganic Chemistry and Petrochemistry, National Academy of Sciences of Ukraine, 50 Kharkivske Shose, 02160, Kyiv, Ukraine</p>		
20:05 - 20:25	<p>The effect of geometrical dimensions on the choice of CNTs for polymer mixing Theoretical and practical study M.Giorcelli, P. Jagadale, M.I. Shahzad and A. Tagliaferro DISAT Politecnico di Torino C.so duca degli Abruzzi 24, 10129 Torino (Italy)</p>		
END OF THIRD DAY			
20:30	NN12 INVITED DINNER		

Friday 6 July		'Ioannis Vellidis' Congress Centre	
	Keynote Session VII (All Workshops of NN12) <i>Room:Alexandros</i>		
08:30 – 09:00 Keynote Talk	New Vistas in Fullerene Endohedrals Takeshi Akasaka <i>Life Science Center of Tsukuba Advanced Research Alliance, University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan</i>		
09:00 – 09:30 Keynote Talk	Nanostructured Biomaterials For Implant Applications: Potential And Challenges Rena Bizios <i>Cellular and Tissue Engineering Laboratory, Department of Biomedical Engineering, College of Engineering, University of Texas at San Antonio</i>		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials Characterization I Chair: Anastasiadis S. <i>Room: Alexandros</i>		Parallel Session W3 – Nanomedicine Session: Regenerative Medicine Chair: Bizios R., Missirlis I. <i>Room:Room 6</i>
09:30-09:50 Invited Oral	Laser-assisted Growth of High-quality, Homogeneous Epitaxial Graphene on SiC S. N. Yannopoulos, ^{1,2} A. Siokou, ¹ N. K. Nasikas, ^{1,2} V. Dracopoulos, ¹ F. Ravani, ¹ N. Bouropoulos, ^{1,2} and G. N. Papatheodorou ¹ <i>1 Foundation for Research and Technology – Hellas, Institute of Chemical Engineering Sciences, (FORTH/ICE-HT), P.O. Box 1414, GR-26504, Rio-Patras, Greece</i> <i>2 Department of Materials Science, University of Patras, GR-26504, Rio-Patras, Greece</i>	09:30-10:00 Invited	Nanofibrous Scaffolds for Tissue Engineering – Surface Micropatterning and Chemical Modification Techniques for Improved Biological Performance Q. Cheng, ¹ S. Li, ² and K. Komvopoulos ¹ <i>1 Dept of Mechanical Engineering, Uni of California Berkeley, USA</i> <i>2 Department of Bioengineering</i>
09:50-10:10 Invited Oral	Functionalization of carbon nanotubes with organocatalysts N. Tagmatarchis <i>Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, 48 Vassileos Constantinou Avenue, Athens 116 35, Hellas</i>		
10:10-10:25	Patterned Growth of Crystalline Organic Heterostructures A. Sassella ¹ , L. Raimondo ¹ , M. Campione ² , A. Borghesi ¹ <i>1Department of Materials Science, University of Milano Bicocca, via Cozzi 53, 20125 Milan, Italy</i> <i>2Department of Geological Sciences and Geotechnologies, University of Milano Bicocca, Piazza della Scienza 4, 20126 Milan, Italy</i>	10:00-10:15	Assessment of alveolar deposited surface area of nanoparticles Paula Albuquerque ¹ , J. Gomes ^{2,3} ; M. Fátima Reis ⁴ <i>1ESTESL – Escola Superior de Tecnologia de Saúde de Lisboa – Instituto Politécnico de Lisboa, Av. D. João II, Lote 4.69.01, 1990-096 Lisboa, Portugal</i> <i>2Área Departamental de Engenharia Química, ISEL – Instituto Superior de Engenharia de Lisboa – Instituto</i>
10:25 - 10:40	Architecture and Properties of Molecular Heterostructures and Materials Yuliang Li, Huibiao Liu, Yongjun Li <i>Beijing National Laboratory for Molecular Sciences (BNLMS), CAS Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Zhongguancun North First Street 2, Beijing 100190, People's Republic of China</i>	10:15-10:30	Assessing long-term effects of nanomaterials on endothelial cells in a 3D cell culture system M. Mrakovcic ¹ , M. Absenger ¹ , C. Meindl ¹ , R. Riedl ² , E. Roblegg ³ , E. Fröhlich ¹ <i>1 Center for Medical Research, Medical University of Graz, Stiftingtalstraße 24, 8010 Graz, Austria;</i> <i>2 Institute for Medical Informatics, Statistics and Documentation, Medical University of Graz, Auenbruggerplatz 2, 8036 Graz, Austria;</i> <i>3 Institute of Pharmaceutical Sciences- Pharmaceuticals Technology, Karl-Franzens-University of Graz, Humboldtstraße 46, 8010 Graz, Austria</i>

10:40- 10:55	Spectroscopic Ellipsometry in Nano-Science and Nano-Technology R. Seitz ¹ , C. Eypert ² , J. Gaston ² <i>1 Horiba Scientific, 82008 Unterhaching, Germany</i> <i>2Horiba Scientific, 91380 Chilly-Mazarin, France</i>	10:30 – 10.:45	A nanostructured cell culture substrate activates endothelial beta-catenin signaling M. Scherthaner ¹ , B. Reisinger ² , J. Heitz ² , H. Wolinski ³ , S.D. Kohlwein ³ , G. Leitinger ⁴ , K. Groschner ¹ <i>1Institute of Biophysics, Medical University Graz, A-8010 Graz, Austria</i> <i>2Institute of Applied Physics, Johannes Kepler University Linz, A-4040 Linz, Austria</i> <i>3Institute of Molecular Biosciences, University of Graz, A-8010 Graz, Austria</i> <i>4Institute of Cellbiology, Histology, Embryology, Medical University Graz, A-8010 Graz, Austria</i>
10:55 – 11:10	Measurements of mechanical, electrical and optical properties of modern nanostructures with AFM-based methods I. Bykov <i>NT-MDT Co., Zelenograd, Moscow, Russia</i>	10:45-11:00	Visualization of internalization of functionalized cobalt ferrite nanoparticles J. Lojk ¹ , V. B. Bregar ¹ , M. Stražišar ¹ , V. Šuštar ^{1,2} , P. Veranič ² , M. Pavlin ¹ <i>(1) Faculty of Electrical Engineering, University of Ljubljana, SI-1000 Ljubljana, Slovenia (mojca.pavlin@fe.uni-lj.si)</i> <i>(2) Faculty of Medicine, University of Ljubljana, SI-1000 Ljubljana, Slovenia "</i>
11:10 –11:30	Coffee Break-Exhibition-Networking		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials Characterization II <i>Chair: Constantoudis V.</i> <i>Room: Alexandros</i>		Parallel Session W3 – Nanomedicine Special Session IV: Opportunities for International Net & Co in Nanomedicine <i>Chair: Moya S.</i> <i>Room: Room 6</i>
11:30 – 12:00 Invited	The production, surface chemistry and application of nanoscale diamond Anke Krueger <i>Institute for Organic Chemistry, University of Würzburg, Würzburg, Germany</i>	11:30 – 11:40 Invited	Concerns in Nanosafety - establishment of an international scientific expert committee Andreas Falk ¹ , Sonja Hartl ¹ , Eva Roblegg ² , Eleonore Fröhlich ³ , Andreas Zimmer ² , Frank Sinner ^{1,3,4} <i>1BioNanoNet Forschungsgesellschaft mbH, Elisabethstrasse 9-11, 8010 Graz</i> <i>2Institute of Pharmaceutical Sciences/ Pharmaceutical Technology, Karl-Franzens University of Graz, Universitätsplatz 1, 8010 Graz, Austria</i> <i>3Center for Medical Research, Medical University of Graz, Austria, Stiftingtalstrasse 24, A-8010 Graz</i> <i>4Health - Institute for Biomedicine and Health Sciences, JOANNEUM RESEARCH, Elisabethstrasse 5, A-8010Graz, Austria</i>
		11:40 – 11:50 Invited	Nanomedicine activities in Romania – national and transnational cooperation C. Roman, D. Dascalu <i>National Institute for Research and Development in Microtechnologies – IMT Bucharest 126 A (32 B) Erou Iancu Nicolae Str., 077190, Voluntari, Ilfov, Romania</i>
12:00 – 12.30	Nanomechanics of Phospholipid Microbubbles Vasileios Koutsos <i>University of Edinburgh, UK</i>	11:50 - 12:00 Invited	American Society of Nanomedicine Marianna Foldvari <i>School of Pharmacy, Uni. of Waterloo, Waterloo, Canada</i>
12:30 – 12:45	Annealing process on Ti/TiO/TiO₂ multilayer thin films, studied by XPS and HRTEM I. Tsiaoussis ¹ , A. Cacucci ¹ , O. Heintz ¹ , L. Avril ¹ , L. Imhoff ¹ , N. Martin ² , V. Potin ¹ , S. Bourgeois ¹ <i>Laboratoire Interdisciplinaire Carnot de Bourgogne UMR 6303 CNRS - Université de Bourgogne, B.P. 47870, 21078 DIJON CEDEX - France</i>	12:00 - 12:10	NANONET Stergios Logothetidis <i>LTFN, Physics Dept., Aristotle University of Thessaloniki (AUTH), Thessaloniki, Greece</i>
		12:10 – 12:20	Sensitive MeAsuRemenT, detection, and identification of engineered NANOparticles in complex matrices (SMART NANO) Luigi Calzolari

			Biosciences Unit, Institute for Health and Consumer Protection, Joint Research Center of the European Commission, Ispra, Italy
		12:20 – 12:30	Discussion Panel
			Parallel Session W3 – Nanomedicine Session: Drug Delivery Systems Chair: Missirlis I., Foldvari M. Room: Room 6
		12:30 – 12:45	Uncovering Crucial Molecular Mechanisms of Erythropoiesis to Enable Innovative Therapeutic Approaches for Erythroid Disorders Ioannis Vizirianakis Laboratory of Pharmacology, Department of Pharmaceutical Sciences, AUTH, Greece
12:45 – 13:00	The Use Of High Resolution Synchrotron Coplanar And Non-Coplanar Diffraction For Undersanding The Optimisation Of High Quality Algan S. Lazarev*, S. Bauer*, K. Forghani**, M. Barchuk***, T. Baumbach*, V. Holý***, and F. Scholz** ** Karlsruhe Institute of Technology (KIT), 76344 Eggenstein-Leopoldshafen, Germany ** Institute of Optoelectronics, University of Ulm, Albert Einstein Allee 45, 89081 Ulm, Germany ***. Charles University in Prague, Faculty of Mathematics and Physics, Ke Karlovu 5, 12116 Praha 2, Czech Republic;	12:45 – 13:00	Designed Fabrication Of A Multifunctional Polymer Nano-Platform For Dual Activated Controlled Drug Release Panayiotis Bilalis ¹ , Alexandros Chatzipavlidis ^{1,2} , Leto-Aikaterini Tziveleka ¹ , Nikos Boukos ¹ , C.A. Charitidis ² , and George Kordas ¹ NCSR "Demokritos", Institute of Materials Science, Aghia Paraskevi Attikis, Athens, Greece. ^b National Technical University of Athens, School of Chemical Engineering, Athens, Greece."
13:00 – 13:15	Percolation phenomena and chemoresistivity study of polyisoprene-MWCNT composite G. Sakale ¹ , M. Knite ¹ , I. Aulika ² , D. Jakovlevs ³ ¹ Riga Technical University (Institute of Technical Physics) Latvia ² Center for Space Human Robotics (Italian Institute of Technology) Italy ³ Riga Technical University (Riga Biomaterial Innovation and Development Center) Latvia	13:00 – 13:15	Tracking the controlled release of Doxorubicin from superparamagnetic thermo-responsive polymer nanobeads in a microfluid channel on a chip M.P.Leal ¹ , A.Torti ² , A.Riedinger ¹ , R. La Fleur ² , R. Bertacco ² , T. Pellegrino ¹ ¹ Fondazione Istituto Italiano di Tecnologia (Nanotechnology Department), via Morego 30, 16163 Genoa, Italy ² Politecnico di Milano, Polo di Como Via Anzani 42, 22100, Como Italy
13:15 – 13:30	Crystallization Kinetics in Polymer / Layered Silicate Nanocomposites K. Chrissopoulou ¹ , H. Papananou ^{1,2} , S. H. Anastasiadis ^{1,2} ¹ Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas Vasilika Vouton, P. O. Box 1527, 711 10 Heraklion Crete, Greece ² Department of Chemistry, University of Crete 710 03 Heraklion Crete, Greece	13:15 – 13:30	Shear-stress Sensitive Lenticular Vesicles for Targeted Drug Delivery M. N. Holme ^{1,2,3} , T. Saxer ² , A. Zumbuehl ³ , B. Müller ¹ ¹ Biomaterials Science Center, University of Basel, c/o University Hospital Basel, 4031 Basel, Switzerland ² University Hospitals of Geneva, Cardiology Division, Department of Medicine, Rue Gabrielle-Perret-Gentil 4, 1205 Geneva, Switzerland ³ University of Geneva, Department of Organic Chemistry, Quai Ernest-Ansermet 30, 1211 Geneva, Switzerland.
13:30 – 13:45	Hybrid Nanostructured Cellular Materials G.D. Hibbard Department of Materials Science and Engineering, University of Toronto, 184 College Street, Toronto, ON, M5S3E4, Canada	13:30 – 13:45	Synthesis of Non-Viral Nanovectors Based on Carbon Nanotubes (CNT) Functionalization with Polyethylenimine and Evaluation of their Transfection Efficiency in Gene Delivery M. Ramezani ¹ , A. Hashemnia ^{1,2} , M. Rahimizadeh ² , H. Eshghi ² , K. Abnous ¹ ¹ Pharmaceutical Research Center, School of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran ² Faculty of Science, Department of Chemistry, Ferdowsi University, Mashhad, Iran

		13:45 – 14:00	Magnetic pH-responsive Nanogel as Multifunctional Delivery Tool for small interfering RNAs (siRNAs) A Curcio**, A Riedinger**, R Marotta**, A Falqui**, L Manna** and T Pellegrino*,** * National Nanotechnology Laboratory of CNR-NANO, Via per Arnesano, 73100 Lecce (Italy) **Italian Institute of Technology, via Morego 30, 16163, Genova (Italy)
13:45 – 14:00	Nano-Particles Scattering and Elements of Scattering Amplitude Matrix Ali R. Amani ¹ , A. A. Hosseini ² , J. Sadeghi ² , H. Ghorbanpour ² <i>1</i> Department of Physics, Islamic Azad University, Ayatollah Amoli Branch, P.O. Box 678, Amol, Mazandaran, Iran <i>2</i> Sciences Faculty, Department of Physics, Mazandaran University, P.O. Box 47416-95447, Babolsar, Iran	14:00 – 14:15	Biocompatible magnetic nanowires for sensing and drug delivery K.M.Pondman ¹ , A.W. Maijenburg ² , B. ten Haken ¹ , J.E. ten Elshof ² <i>1</i> NIM, MIRA Institute, University of Twente, Enschede, The Netherlands <i>2</i> IMS, MESA+ Institute, University of Twente, Enschede, The Netherlands
14:15 – 15:00	Lunch Buffet Break		
	Poster Session - Exhibition – Networking Posters of Workshop 2 (P2-71 to P2-130), Workshop 3 and Workshop 4 at 14:30 – 15:00 Chair: Anastasiadis S., Tagmatarchis N., P. Kavatzikidou		
	Keynote Session VIII (All Workshops of NN12) <i>Room:Alexandros</i>		
15:00 – 15:30 Keynote Talk	10-year of preclinical and clinical experience in musculo-skeletal regenerative applications: A translational concept Hans Jorg Meisel <i>Department of Neurosurgery, BG-Clinic Bergmannstrost, Germany</i>		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials Characterization III Chair: Krueger A., Kalfagiannis N. <i>Room:Alexandros</i>		Parallel Session W3 – Nanomedicine Special Session V: Debate On Nanotechnologies into Translational Medicine vs Nanotoxicity Chair: Moya S., Krol S. <i>Room: Room 6</i>
15:30 – 16:00 Invited	The Synthesis of Metal Nanoparticulate Catalysts within Functional Microgel Particles S. H. Anastasiadis, ^{1,2} M. Kaliva, ^{1,3} K. Christodoulakis, ^{1,3} M. Vamvakaki, ^{1,3} <i>1</i> Institute of Electronic Structure and Laser, Foundation for Research and Technology-Hellas, P.O. Box 1527, 711 10 Heraklion Crete, Greece <i>2</i> Department of Chemistry, University of Crete, 710 03 Heraklion Crete, Greece <i>3</i> Department of Materials Science and Technology, University of Crete, 710 03 Heraklion Crete, Greece	15:30 – 15:50 Invited	Functionalized gold nanoparticles and the blood brain barrier Fernanda Sousa ¹ , Patrizia Andreozzi ¹ , Martin Schaeffler ² , Sabine Huewel ³ , Hans-Joachim Galla ³ , Wolfgang Kreyling ² , Silke Krol ¹ <i>1</i> Fondazione IRCCS Istituto Neurologico "Carlo Besta", Milan, Italy <i>2</i> Comprehensive Pneumology Center (CPC), Institute of Lung Biology + Disease (ILBD), Helmholtz Zentrum München, German Research Center for Environmental Health (GmbH), Munich, Germany <i>3</i> Institute of Biochemistry, University of Münster, Muenster, Germany
16:00 – 16:15	Polymer Nanocomposites with Mesostructured Silicas D.J. Giliopoulos and K.S. Triantafyllidis* Department of Chemistry, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece	15:50 – 16:05	TiO₂ and TiSiO₄ nanoparticles induced oxidative stress and apoptosis of HEK-293 cells Ruchita Pal ¹ , Ramovatar Meena ² and Paulraj Rajamani ² <i>Advanced Instrumentation Research Facility, Jawaharlal Nehru University, New Delhi, India</i> <i>School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India</i>
16:15 - 16:30	Nano-Layers of Nitride Semiconductors Grown by MEAGlow Epitaxial Technology and their Low-Dimensional Optical Properties	16:05 - 16:20 Cancelled	Effect of Mesoporous Silica Nanoparticle Surface Functionalization on Toxicity to Red Blood Cells, Thrombogenicity and Protein Adsorption

	D. Alexandrov ^{1, 2} , S. Butcher ^{2, 1} , P. Terziyska ¹ , R. Gergova ¹ , P. Binsted ¹ , D. Georgieva ¹ , V. Georgiev ² 1)Semiconductor Research Laboratory, Lakehead University, 955 Oliver Road, Thunder Bay, ON P7B5E1, Canada 2)Meaglow Ltd., 1294 Balmoral Street, Suite 150, Thunder Bay, ON P7B5Z5, Canada		Adem Yildirim ^{1,2} , Erol Ozgur ^{1,2} and Mehmet Bayindir ^{1,2,3} 1UNAM-National Nanotechnology Research Center, 2Institute of Materials Science and Nanotechnology, 3Department of Physics, Bilkent University, 06800 Ankara, Turkey
16:30-16:45	Ion-Beam-Induced Desorption as a Method for Probing Molecule-Substrate Interface in Self-Assembled Monolayers P. Cyganik ¹ , S. Wyczawska ² , F. Vervaecke ² , E. Vanderweert ² , P. Lievens ² 1Smoluchowski Institute of Physics, Jagiellonian University, Reymonta 4, 30-059 Kraków, Poland. 2Institute for Nanoscale Physics and Chemistry, K.U.Leuven, Celestijnenlaan 200D, 3001 Leuven, Belgium."	16:20-16:35	Oxidative stress and mitochondrial mediated apoptosis induced by engineered hydroxyapatite nanoparticles in human breast adenocarcinoma (MCF-7) cells Ramovatar Meena ¹ and Paulraj Rajamani ² School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India
16:45 - 17:00	Photocatalytic degradation of pollutants using TiO2 photocatalysts T. Albanis ¹ , I.M Arabatzis ² , I.K Konstantinou ³ , V. Sakkas ¹ , K. Dimou ¹ , P. Falaras ⁴ 1 Department of Chemistry, University of Ioannina 45100 Ioannina, Greece 2 NanoPhos SA, Science & Technology Park of Lavrio 19500 Lavrio, Greece 3 Department of Environmental and Natural Resources Management, University of Ioannina, 30100 Agrinio, Greece 4 Institute of Physical Chemistry, NCSR "Demokritos" 153 10, Athens, Greece"	16:35 - 16:55 Invited Oral	Uptake, biological fate, biodistribution and toxicological studies of metal oxide nanoparticles S.E.Moya ^{1,3} ,C.Perez ¹ , J.Llop ² , E.Rojas ¹ , Y.Qiu ¹ ,I.Estrella-Lopis ² , E.Donath ² , Z.Mao ³ , Ch.Gao ³ 1.CIC biomaGUNE, San Sebastian, Spain 2.Institute of Biophysics and Medical Physics, University of Leipzig, Härtelstrasse 16-18, D-04107, Leipzig, Germany 3.MOE Key Laboratory of Macromolecular Synthesis and Functionalization, Department of Polymer Science and Engineering, Zhejiang University, Hangzhou 310027, China
		17:15- 17:30	Legal Implications of Nanomedicine for Public Health Ilise Feitshans Institute for Health at Work , Uni of Lausanne, Switzerland
17:00 - 17:15	Colloidal Development of Branched TiO2 Nanostructures M. R. Belviso ^{1,5*} C. Giannini ² E. Carlino ³ V. Grillo ⁴ P. Davide Cozzoli ^{5,6} 1 Scuola Superiore ISUFI -University of Salento- Via per Arnesano km 5, 73100 Lecce, Italy. 2 Istituto di Cristallografia (IC-CNR) via Amendola 122/O, 70126 Bari, Italy 3 IOM CNR Laboratorio TASC, Area Science Park—Basovizza, Km 163.5, 34149 Trieste, Italy. 4 Center s3, Nanoscience Institute of CNR , Via Campi 213/A, 41100 Modena, Italy. 5NNL - Nanoscience Institute of CNR, Via per Arnesano Km 5, 73100 Lecce, Italy. 6Dipartimento di Ingegneria dell'Innovazione, Università del Salento, Via per Arnesano Km 5, 73100 Lecce, Italy.	17:30- 17:45	Discussion Panel Panel participants S.Krol, S.Moya, E.Froehlich, E. Brown, I. Feitshans
17:15 - 17:30	Tribology investigation of silver, gold and nickel electroplated and chemically plated in presence of detonation nano-diamonds and nano-oxides Alexey A. Kalachev, Alexey A. Antipov, Yuri A. Fedutik PlasmaChem GmbH, Rudower Chaussee 29, Berlin, 12489, Germany, www.plasmachem.com		

17:40 –18:00	Coffee Break-Exhibition-Networking		
	Parallel Session W2 – Nanomaterials, Nanofabrication, Nanoengineering & Nanoconstruction Session: Nanomaterials 4 Chair: Patsalas P., Gravalidis Ch. Room:Alexandros		Parallel Session W3 – Nanomedicine Session: Nanoparticles in Nanomedicine Chair: Brown E.M., Meisel H.J. Room:Room 6
18:00-18:30 Invited	Morphological characterization of nanostructures through the analysis of SEM images V. Constantoudis, V.K. Murugesan Kuppuswamy, N. Karasmani, G. Giannakopoulos and E. Gogolides Institute of Microelectronics, NCSR Demokritos, Greece	18:00-18:20 Invited Oral	Remotely triggered drug release via nanoparticle-mediated NIR hyperthermia Jesus Santamaria Dept of Chemical & Environmental Engineering & Aragon Nanoscience Inst, Uni of Zaragoza, Spain
18:30 – 18:50	Efficient biexciton emission in elongated CdSe/ZnS nanocrystals Y. Louyer, M.J. Fernée, Ph. Tamarat and B. Lounis Photonique Numérique et Nanosciences, Université de Bordeaux, Institut d'Optique Graduate School & CNRS, 351 cours de la libération, 33405 Talence, France	18:30 – 18:50 Invited Oral	Specific absorption rate of ferromagnetic magnetite nanoparticles suitable for magnetic hyperthermia F. Plazaola 1 , E. Garaio1, J.M. Collantes1, I. Castellanos2, M. Insausti2, I. Gil de Muro2, and J.A Garcia3 1Elektrizitatea eta Elektronika Saila, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain 2Kimika Ezorganikoa, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain;3Fisika Aplikatua II, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain;
18:50 – 19:05	Dynamics of Plasmonic Nanopore Formation with less than 5 nm diameter on Plasmonic Cavity Membrane S. S Choi1,*, T. Yamaguchi2, N.K. Park3, D.S. Kim4. 1Department of Nanoscience, SunMoon University, 2University Instrument Center, SunMoon University, 3School of Electrical Engineering, Seoul National University, Seoul, Korea 4school of Physics and Astronomy, Seoul National University, Seoul, Korea"	18:50 – 19:05	Effects of PEGylated gold nanoparticles on surface marker expression and antigen uptake in dendritic cells. Kleanthis Fytianos1, Emilie Seydoux2, Fabian Blank2, Alke Petri – Fink1, Christophe von Garnier2, Barbara Rothen – Rutishauser1,2 1: Adolphe Merkle Institute, Université de Fribourg, Route de l'ancienne Papeterie CP 209 CH-1723 Marly 1 Switzerland 2: University of Bern, Departement of Clinical Research Murtenstrasse 50, CH-3010 Bern, Switzerland
19:05 – 19:25 Invited Oral	Protection of inventions in nanotechnology and Technological information from patents. Kostas Abatzis Industrial Property Organization (O.B.I.) (Director, Applications & Grants) Athens, Greece	19:05 – 19:20	Sensing modified-gold nanoparticles with the α-hemolysin pore E. Campos1, A. Asendei2, C. E. McVey1, J. C. Dias1, A. S. F. Oliveira1, C. M. Soares1, T. Luchian2, Y. Astier1 1Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Av. da República, EAN, 2781-901 Oeiras, Portugal; 2Department of Physics, Laboratory of Molecular Biophysics and Medical Physics, "Alexandru I. Cuza" University, Boulevard Carol I,
19:25– 19:40	"Could Greece become the Silicon Valley of Southeast Europe? Can Greece attract investments in Nanotechnology?" Panos T. Xenokostas, President & CEO, & Labros Fotos, Group Corporate Relations Executive Glonatech SA, Athens, Greece	19:20– 19:40 Invited Oral	Designing TiO2 Bionanoconjugates for Targeting and Degradation of Selected Biological Structures Eric Michael Bratsolias Brown Dept. of Biological Sciences, Uni. of Wisconsin-Whitewater, USA
19:40	AWARDS CEREMONY NN12 CLOSING REMARKS		



9th International Conference on Nanosciences & Nanotechnologies – NN12

'Ioannis Vellidis' Congress Centre, 3 - 6 July 2012
Thessaloniki, Greece

POSTER PRESENTATIONS Program

Poster Presentations POSTER SESSION I on 3-4 July AND POSTER SESSION II on 5-6 July	
Workshop 1: Plasmonics - Nanoelectronics & Clean Energy POSTER SESSION I: Posters of Workshop 1 and Workshop 2(P2-1 to P2-70) on Tuesday, 3 July and Wednesday 4 July Chair: Konofaos N., Malliaras G., Kassavetis S., Porfyraakis K.	
P1-1	Economization of salt usage in electrolytes for lithium-ion batteries E. Karpierz ^{1,2} , L. Niedzicki ² , M. Kasprzyk ² , W. Wieczorek ² ¹ Faculty of Physics, University of Warsaw, Hoza 69, 00681 Warsaw, Poland ² Faculty of Chemistry, Warsaw University of Technology, Noakowskiego 3, 00664 Warsaw, Poland
P1-2	Use of Microwaves for the rapid synthesis of Thermoelectric materials A. Ioannidou, M. Gjoka and D. Niarchos IMS, NCSR Demokritos, Athens, Greece
P1-3	Giant field enhancement in split-ring-resonators featuring nano-gaps J. Fabiańska, T. Feurer Institute of Applied Physics, University of Bern, Sidlerstrasse 5, CH-3012 Bern, Switzerland, justyna.fabianska@iap.unibe.ch
P1-4	Ultrafast spectroscopy as a tool for studying electron injection dynamics in quasi-solid state Dye Sensitized Solar Cells M. Dori, ¹ M. Fakis, ¹ E. Stathatos, ² Hsien-Hsin Chou, ³ Yung-Sheng Yen, ³ Jiann T'suen Lin ³ , V. Giannetas, ¹ P. Persephonis ¹ ¹ Department of Physics, University of Patras, 26504 Patras, Greece ² Department of Electrical Engineering, Technological and Educational Institute of Patras, 26334 Patras, Greece ³ Institute of Chemistry, Academia Sinica, Taipei, Taiwan 11529
P1-5	Laser annealing and simulation of a:Si thin films for solar cell applications I. Kalpyris ¹ , A. Florakis ¹ , E. Katsia ² , E. Koutsoubi ¹ , V. Vamvakas ² , K. Kotsosovos ² , C. Sarigiannidis ² , I. Raptis ¹ , D. Tsoukalas ¹ , I. Zergioti ¹ ¹ Physics Department, National Technical University of Athens, Heroon Polytechniou 9, 15780 Zographou, Athens, Greece ² Heliosphera, Industrial Area of Tripolis, 8th Building Block, 5th Road, GR-221 00 Tripolis, Greece
P1-6	Modelling of excited-state properties of novel phosphorescent iridium complexes S. Toliautas ¹ , J. Sulskus ¹ , K. Kazlauskas ² , S. Jursenas ² , V. Getautis ³ , L. Valkunas ^{1,4} ¹ Department of Theoretical Physics, Vilnius University Saulėtekio 9-III, LT-10222 Vilnius, Lithuania ² Institute of Applied Research, Vilnius University Saulėtekio 9-III, LT-10222 Vilnius, Lithuania ³ Department of Organic Chemistry, Kaunas University of Technology Radvilėnų 19, LT-50254 Kaunas, Lithuania ⁴ Institute of Physics, Center for Physical Sciences and Technology Savanorių 231, LT-02300 Vilnius, Lithuania

P1-7	Enhanced spontaneous emission in photonic-plasmonic crystals <u>Simona Ungureanu</u> , Renaud Vallée <i>Centre de Recherche Paul Pascal (CNRS), 115 avenue docteur Schweitzer, 33600 Pessac, France</i>
P1-8 CANCELLED	Effect of ultrasonic treatment on the defect structure of the Si-SiO₂ system <u>D.Kropman</u> ¹ , T.Laas ² , E.Dauksta ³ ¹ Tallinn University of technology ² Tallinn University ³ Riga Technical University
P1-9	Room temperature large-area nanoimprinting of hydrogen silsesquioxane nanowires for broadband biomimetic antireflection surfaces Bihter Daglar ^{1,2} , Hakan Deniz ^{1,2} , Tural Khudiyev ^{1,2} , Fatih Buyukserin ³ , <u>Mehmet Bayindir</u> ^{1,2,4} ¹ UNAM-National Nanotechnology Research Center, Bilkent University, 06800 Ankara, Turkey ² Institute of Materials Science and Nanotechnology, Bilkent University, 06800 Ankara, Turkey ³ Department of Biomedical Engineering, TOBB University, 06560 Ankara, Turkey ⁴ Department of Physics, Bilkent University, 06800 Ankara, Turkey
P1-10	Ink Jet Printing of PEDOT:PSS/MWCNT Nanocomposite For Electronic Applications <u>A. S. Alshammari</u> , M. Shkunov and S. Ravi P. Silva <i>Advanced Technology Institute, Faculty of Engineering and Physical Sciences, University of Surrey Guildford, UK</i>
P1-11	Raman study of CVD-grown and laser-annealed nano-crystalline Si for Solar-Cell applications Theodorakos ¹ , I. Kalpyris ¹ , <u>I. Zergioti</u> ¹ , V. Vamvakas ² , K. Kotsovos ² , C. Sarigiannidis ² , Y. S. Raptis ¹ ¹ Phys. Dept., School. Appl. Math. & Phys. Sciences, Natl. Tech. Univ., Athens, GR 157 80, Greece ² Heliosphera, Industrial Area of Tripolis, 8th Building Block, 5th Road, GR-221 00 Tripolis, Greece
P1-12	Visible and Near-Infrared Electrochromic Devices containing Tetraphenyl-phenylendiamine derivatives G. Chidichimo, <u>S. Cospito</u> , B.C. De Simone, D. Imbardelli, B. Gabriele, G. Salerno, L. Veltri. <i>Dipartimento di Chimica, Università della Calabria Via P. Bucci, 87036, Rende (CS), Italy</i>
P1-13	Experimental Investigation of Hydrogen-Sorption Characteristics of Nanomaterials D.V.Schur, <u>S.Yu. Zaginaichenko</u> , A.F. Savenko, V.A.Bogolepov <i>Institute for Problems of Materials Science of NAS of Ukraine,</i>
P1-14	Deposition of Catalyst-Containing Carbon Nanostructures on Proton-Conducting Polymer Membranes by Electrophoresis <u>A.D. Zolotareenko</u> , S.Yu. Zaginaichenko, D.V. Schur, Z.A. Matysina <i>Institute for Problems of Materials Science of NAS of Ukraine, Laboratory №673 Krzhyzhanovsky str., Kyiv, 03142 Ukraine</i>
P1-15	Light trapping structures for organic photovoltaics <u>M. Josiek</u> , J. Rysz, A. Budkowski <i>Smoluchowski Institute of Physics, Jagiellonian University, Reymonta 4, 30-059 Kraków, Poland</i>
P1-16	Laser scribing of nanocomposite thin films for the development of large scale monolithic photovoltaic panels <u>Panagiota KORALLI</u> ¹ , Michael KOMPITSAS ² , D.E. MANOLAKOS ¹ ¹ School of Mechanical Engineering, National Technical University of Athens, Iroon Polytechniou 9 Zografu, 15780 Athens, GREECE ² National Hellenic Research Foundation, Theoretical and Physical Chemistry Institute, 11635 Athens, GREECE
P1-17	Multi-scale/multi-physics modelling of cantilever-based gas sensors K. Kleovoulou ¹ , E. Sarris ¹ , P.C Kelires ¹ , <u>G. Constantinides</u> ^{1,2} , N.G Hadjiconstantinou ³ ¹ Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Lemesos, Cyprus ² Department of Civil and Environmental Engineering, MIT, Cambridge, US ³ Department of Mechanical Engineering, MIT, Cambridge, US
P1-18	Phase-Dependent Effects in the Absorption and Dispersion of a Four-Level Quantum System near a Plasmonic Nanostructure <u>Sofia Evangelou</u> , Vassilios Yannopoulos, Emmanuel Paspalakis <i>Materials Science Department, University of Patras, Patras 265 04, Greece</i>
P1-19	Nanowire based field-effect transistors for printed electronics <u>M. Shkunov</u> ¹ , C. Opoku ¹ , L. Chen ² , F. Meyer ²

	<p>¹Advanced Technology Institute, University of Surrey, Guildford GU2 7XH, UK ²Merck Chemicals, Chilworth Technical Centre, University Parkway, Southampton SO16 7QD, UK</p>
P1-20	<p>Gravure printed organic photovoltaic devices and modules C. Koidis, C. Kapnopoulos, A. Ioakeimidis, P. G. Karagiannidis, D. Georgiou, S. Kassavetis, C. Pitsalidis, A. Laskarakis, and S. Logothetidis Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece</p>
P1-21	<p>Preparation and proton conductivity of Nafion-ZrOH-CaO hybrid membrane Vahid Mazinani, <u>Seyed Hadi Tabaian*</u>, Hamid Omidvar Department of Mining and Metallurgical Engineering, Amirkabir University of Technology (Tehran Polytechnic), Hafez Ave., P.O. Box 15875-4413, Tehran, Iran</p>
P1-22 CANCELLED	<p>Point Defects interaction with impurities in the Si-SiO₂ system - Dedicated to the memory of Professor Ulrich Gösele D.Kropman Tallinn University of Technology, Tallinn, Estonia</p>
P1-23	<p>Silver nanoclusters for ZnPc/C60 organic solar cells Gina Peschel, Maren Toepel, Konstantinos Fostiropoulos Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany</p>
P1-24	<p>THz time domain spectroscopy of thin Au and Ti layers J. Szczytko¹, R. Adomavicius², E. Papis³, A. Barańska³, A. Wawro⁴, A.Krotkus², B. Piętko¹, and J. Łusakowski¹ ¹Institute of Experimental Physics, Faculty of Physics, University of Warsaw, Hoża 69, 00-681 Warsaw, Poland ²Center for Physical Sciences and Technology, A. Gostauto 11, 01108, Vilnius, Lithuania ³Institute of Electron Technology, Al. Lotników 32/46, 02-668 Warsaw, Poland ⁴Institute Physics, PAS, Al. Lotników 32/46, 02-668 Warsaw, Poland</p>
P1-25	<p>Faraday rotation as a tool for determination of the magnetic moment of a ferromagnetic nanoparticle Jacek Szczytko¹, Nataša Vaupotič^{2,3}, Karolina Madrak⁴, Paweł Sznajder¹ and Ewa Górecka⁴ ¹Institute of Experimental Physics, Faculty of Physics, University of Warsaw, Hoża 69, 00-681 Warsaw, Poland ²Department of Physics, Faculty of Natural Sciences and Mathematics, University of Maribor, Maribor, Slovenia. ³Jozef Stefan Institute, Ljubljana, Slovenia. ⁴Department of Chemistry, University of Warsaw, Warsaw, Poland</p>
P1-26	<p>Structural and optical properties of photoactive thin films for flexible solar cells M. Seitaniidou, P.G. Karagiannidis, D. Georgiou, A. Laskarakis, C. Pitsalidis, S. Logothetidis Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece</p>
P1-27	<p>Thermoelectric Energy Harvesting for Agricultural Monitoring M. E. Kiziroglou¹, A. Papachristou², L. Petrou², S. Koundouras³ and A. A. Hatzopoulos² ¹Department of Automation, TEI of Thessaloniki, Sindos, 57400, Greece ²Department of Electrical and Computer Engineering, AUTH, Thessaloniki, Greece ³School of Agriculture, AUTH, Thessaloniki, Greece</p>
P1-28	<p>Novel in-gap Electronic Structures by Metal inclusion in Sulphides Compounds: Theoretical Predictions and Experimental Realizations P. Wahnón¹, P. Palacios¹, Y. Seminovski¹, R. Lucena², J. C. Conesa² ¹Instituto de Energía Solar, U. P. M., Avda Complutense 30, 28040 Madrid, Spain. ²Instituto de Catálisis y Petroleoquímica, CSIC, Marie Curie 2, 28049 Madrid, Spain.</p>
P1-29	<p>Thickness and temperature effect on the properties of alpha-sexithiophene (a-6T) and the efficiency of a-6T/C60 solar cells S. Kassavetis¹, T. Mete¹, K. Despotelis^{1,2}, G. Peschel¹, M. Toepel¹, D. Papadimitriou² and K. Fostiropoulos¹ ¹ Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany ² National Technical University of Athens, Department of Physics, GR-15780 Athens, Greece</p>
P1-30	<p>Flexible ZnPc:C60 organic solar cells on ITO/PET substrate S. Kassavetis¹, T. Mete¹, C. Koidis², S. Logothetidis² and K. Fostiropoulos¹ ¹ Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany ² Aristotle University of Thessaloniki, Department of Physics, GR-54124 Thessaloniki, Greece</p>

P1-31	Performance enhancement of ZnPC:C60 bulk heterojunction solar cells via interface optimization S. Kassavetis ¹ , P. Karagiannidis ² , T. Mete ¹ , W. W. Schindler ¹ , S. Logothetidis ² and K. Fostiropoulos ¹ 1. Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin, Germany 2. Aristotle University of Thessaloniki, Department of Physics, GR-54124 Thessaloniki, Greece
P1-32	The Production of Cu Doped ZnO Structures by The Electrochemical Deposition Technique and The Use of These Structures in Solar Cells Nagihan UYANIK ¹ , Arif KÖSEMEN ¹ , Zühal ALPASLAN KÖSEMEN ¹ , Assoc. Prof. Dr. Yusuf YERLİ ¹ , Prof. Dr. Sait Eren SAN ¹ ¹ Department of Physics, Gebze Institute of Technology, Kocaeli 41400, Turkey

Workshop 2– NANOMATERIALS, NANOFABRICATION, NANOENGINEERING & NANOCONSTRUCTION

POSTER SESSION I: Posters of Workshop 1 and Workshop 2(P2-1 to P2-70) on Tuesday, 3 July and Wednesday 4 July

Chair: Konofaos N., Malliaras G., Kassavetis S., Porfyraakis K.

POSTER SESSION II: Posters of Workshop 2 (P2-71 to P2-130), Workshop 3 & Workshop 4 on Thursday, 5 July & Friday 6 July

Chair: Anastasiadis S., Tagmatarchis N., P. Kavatzikidou

P2-1	Mechanical and Dielectric Properties of Barium Titanate/Polyester Nano-Composite Materials I.A. Asimakopoulos ¹ , G.C. Psarras ² , L. Zoumpoulakis ³ ^{1,3} Affiliation (National Technical University of Athens, School of Chemical Engineering, Departement III “Materials Science and Engineering”, Laboratory Unit “Advanced and Composite Materials”, 9-Heroon Polytechniou street, Zografou Campus, Athens 157 73, Greece Department, ² Affiliation (Department of Materials Science, School of Natural Sciences, University of Patras, Patras 26504, Greece)
P2-2	Field Emission and electrical bistable properties of CuTCPQ nanostructures Huibiao Liu, Yongjun Li, Yuliang Li Beijing National Laboratory for Molecular Sciences (BNLMS), CAS Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Zhongguancun North First Street 2, Beijing 100190, People’s Republic of China
P2-3	Nanometer-Sized Reactor---A Porphyrin-Based Model System for Anion Species Yongjun Li, Huibiao Liu, Yuliang Li Beijing National Laboratory for Molecular Sciences (BNLMS), CAS Key Laboratory of Organic Solids, Institute of Chemistry, Chinese Academy of Sciences, Zhongguancun North First Street 2, Beijing 100190, People’s Republic of China
P2-4	New magnetic and optical functionalities on nanomaterials S. Ohkoshi ^{1,2} ¹ Department of Chemistry, School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, JAPAN ² CREST, JST, K’s Gobancho, 7 Gobancho, Chiyoda-ku, Tokyo 102-0076, JAPAN
P2-5	Phase collapse phenomenon in a rubidium manganese hexacyanoferrate H. Tokoro ^{1,2} and S. Ohkoshi ^{1,3} ¹ Department of Chemistry, School of Science, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan, ² NEXT, JSPS, 8 Ichibancho, Chiyoda-ku, Tokyo 102-8472, Japan, ³ CREST, JST, K’s Gobancho, 7 Gobancho, Chiyoda-ku, Tokyo 102-0076, Japan
P2-6	Synthesis, characterization and photocatalytic activity of Fe(III) doped ZnO nanocrystals K. Kumar, M. Chitkara, S. Kumar, I.S. Sandhu Nanomaterials Research Laboratory, Chitkara University, Rajpura-140401 Punjab, India.
P2-7	Optical Specificity of Symmetric Molecular Nanofilms S.S. Pelemiš ¹ , D. Rodić ² , S. Armaković ² , J.P. Šetrajić ^{2,*} , D.Lj. Mirjanić ^{3,*} , ¹ University of East Sarajevo, Faculty of Technology, Zvornik, Republic of Srpska – B&H ² University of Novi Sad, Faculty of Sciences, Department of Physics, Vojvodina – Serbia ³ University of Banja Luka, Faculty of Medicine, Republic of Srpska – B&H * Academy of Sciences and Arts of the Republic of Srpska – B&H
P2-8	Effect of different spin speeds on the physical properties of F and Sb doped SnO2 thin films prepared by spin coating method Battal ¹ , D. Tatar ² , A. Koçyiğit ³ , B. Düzgün ²

	<p>¹Education Faculty, Department of Science Education, Muş Alparslan University, Muş, Turkey ²K.K. Education Faculty, Department of Physics Education, Atatürk University, Erzurum, Turkey ³Health Services Vocational High School, Iğdir University, Iğdir, Turkey</p>
P2-9	<p>Investigation of substrate-nozzle distance effect on F and Sb Doped SnO₂ Thin Films A. Kocyiğit¹, D. Tatar², A. Battal³, B. Düzgün² ¹Health Services Vocational High School, Iğdir University, Iğdir, Turkey ²K.K. Education Faculty, Department of Physics Education, Atatürk University, Erzurum Turkey ³Education Faculty, Department of Science Education, Muş Alparslan University, Muş, Turkey</p>
P2-10	<p>Au-Pd nanostructures with Different Shapes: Synthesis, Their Optical Property, and Electrocatalytic Activity D. Y. Kim¹, K. W. Choi¹, S. H. Im², O O. Park^{1,3*} ¹Department of Chemical and Biomolecular Engineering, KAIST 291 Daehakro, Yuseong-gu, Daejeon 305-701, Republic of Korea ²KRICT-EPFL Global Research Laboratory, Advanced Materials Division, KRICT, Korea ³Department of Systems Engineering, DGIST, Korea</p>
P2-11	<p>Simulations of bioactive glass nanoparticles A.Tilocca Department of Chemistry, University College London, London WC1H 0AJ, United Kingdom</p>
P2-12	<p>Homogeneous aligned layers of discotic liquid crystals Zemtsova M.A., Merekalov A.S., Otmakhova O.A., Talroze R.V. Topchiev Institute of Petrochemical Synthesis RAS, Moscow, Russia</p>
P2-13	<p>Chlorofullerene C₆₀Cl₆: a versatile precursor for synthesis of functionalized [60]fullerene derivatives E. Khakina¹, A. Yurkova¹, A. Peregudov², S. Troyanov³, A. Mumyatov¹, V. Martynenko¹, P. Troshin¹ ¹Institute for Problems of Chemical Physics of Russian Academy of Sciences, Semenov ave 1, Chernogolovka, Moscow region, 142432, Russia ²A. N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences, 1 Vavilova St. 28, B-334, Moscow, 119991, Russia ³Department of Chemistry, Moscow State University, Leninskie gory, Moscow, 119991, Russia</p>
P2-14	<p>Effect of Current Density on Electrodeposited Vanadium Oxide Coatings H. Drosos¹, A. Sapountzis², E. Koudoumas^{3,4}, N. Katsarakis^{3,5,6}, D. Vernardou^{2,3,5} ¹Mechanical Engineering Department, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece ²Department of Materials Science and Technology, University of Crete, 710 03 Heraklion, Crete, Greece ³Center of Materials Technology and Laser, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece ⁴Electrical Engineering Department, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece ⁵Science Department, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece ⁶Institute of Electronic Structure and Laser, Foundation for Research & Technology- Hellas, P.O. Box 1527, Vassilika Vouton, 711 10 Heraklion, Crete, Greece</p>
P2-15	<p>Electrodeposition of Vanadium Oxides on Various Substrates H. Drosos^{1*}, M. Vezirh¹, E. Koudoumas^{3,4}, N. Katsarakis^{2,4,5}, D. Vernardou^{2,4,6} ¹Mechanical Engineering Department, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece. ²Center of Materials Technology and Photonics, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece. ³Electrical Engineering Department, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece. ⁴Science Department, School of Applied Technology, Technological Educational Institute of Crete, 710 04 Heraklion, Crete, Greece. ⁵Institute of Electronic Structure and Laser, Foundation for Research & Technology-Hellas, P.O. Box 1527, Vassilika Vouton, 711 10 Heraklion, Crete, Greece. ⁶Department of Materials Science and Technology, University of Crete, 710 03 Heraklion, Crete, Greece</p>
P2-16	<p>Applied aspects of extrema envelope spectra Fabry-Perot for control parameter layers Petro Kosobutskyy, Yryi Hanas Lviv Polytechnic National University S. Bandera 12 Str. 79646, Lviv. Ukraine</p>
P2-17	<p>Synthesis and some properties of Fe-Co alloys A.N. Popova, Yu.A. Zaharov, V.M. Pugachev Institute of Coal-chemistry and Material science of RAS SB, Kemerovo State University650000, Russia, Kemerovo, Sovetskiy av., 18</p>
P2-18	<p>FTIR spectra for C-Pd nanocomposites</p>

LMP	J. Keczkowska, M. Plaza Division of Photonics and Electronic Nanomaterials, Kielce University of Technology 25-413 Kielce, Al.Tysiąclecia P.P. 7, Poland
P2-19	Effect of the surface morphology on Superhydrofobicity and Buoyancy of the cabbage leaf and the VACNTs carpet E. Lepore ¹ , M.Giorcelli ² , C. Saggese ¹ , N. Pugno ¹ and A. Tagliaferro ² ¹ DISEG and ² DISAT Politecnico di Torino C.so duca degli Abruzzi 24, 10129 Torino (Italy)
P2-20	Fabrication of nano scale materials using Shadow Nanosphere Lithography – an approach to large area nanoengineering. E. M. Akinoglu, M. Giersig Department of Physics, Freie Universität Berlin)Arnimallee 14 14195 Berlin, Germany
P2-21	Structure and optical properties of amorphous diamond-like carbon films with platinum nanoclusters O.Yu. Prikhodko ^{1,2} , N.K.Manabaev ^{1,2} , A.P. Ryagusov ² , N.R. Guseynov ² , S.Ya. Maksimova ¹ and E.A. Daineko ² ¹ Physical and Technical Department of Al-Farabi Kazakh National University, ² National Nanotechnological Laboratory of Open Type at Al-Farabi Kazakh National University, 050040, 71 Al-Farabi av., Almaty, Kazakhstan
P2-22	Porous Membranes Based on Aromatic Polyethers Blended with Water Soluble Polymers for Application as Separators in Lithium Batteries A. Vöge, ¹ V. Deimede, ¹ J. K. Kallitsis, ¹ C. Elmasides ² ¹ Department of Chemistry, University of Patras, 26500 Patras, Greece ² SYSTEMS SUNLIGHT S.A., 67200 Neo Olvio, Xanthi, Greece
P2-23	Annealing of Cu/Ag metallizations on n-GaN L. Dobos ¹ , L. Tóth ¹ , B. Pécz ¹ , Zs.J. Horváth ² , Z.E. Horváth ¹ , M-A. Poisson ³ ¹ Institute for Technical Physics and Materials Science, Research Centre for Natural Sciences, Hungarian Academy of Sciences, H-1525, Budapest, P.O.B. 49, Hungary ² Óbuda University, Kandó Kálmán Faculty of Electrical Engineering, Institute of Microelectronics and Technology, Budapest, Tavaszmező u. 15-17, H-1084 Hungary ³ Alcatel-Thales III-V Lab, Route de Nozay-F91461 Marcoussis Cedex, France
P2-24	Nanotechnology products applications in the preservation of heritage objects M. Geba ¹ , M. Ursescu ^{1,2} , A.M.Vlad ¹ , N.Vornicu ³ ¹ 'Moldova' National Museum Complex of Iasi, 1 Stefan cel Mare Blvd., 700124 Iasi, Romania ² 'Al.I.Cuza' University, 11 Carol I Blvd, 700506 Iasi, Romania ³ Metropolitan Research Center T.A.B.O.R, 9 Closca Street, 700066 Iasi, Romania
P2-25	Magnetic and structural properties of nanosized NiFe₂O₄ obtained by the soft mechanochemically assisted synthesis from mixture powders I. Kuryliszyn-Kudelska ¹ , M. Arciszewska ¹ , N. Nedelko ¹ , Z. Ž. Lazarević ² , N. Ž. Romčević ² , Č. Jovalekić ³ , A. Rečnik ⁴ V. N. Ivanovski ⁵ , A. Milutinović ² , B. Cekić ⁵ ¹ Institute of Physics, Polish Academy of Sciences, Al. Lotników 32/46, 02-668 Warsaw, Poland ² Institute of Physics, Belgrade University, P.O. Box 68, Pregrevica 118, Zemun, Belgrade, Serbia ³ Institute for Multidisciplinary Research, Belgrade University, Kneza Višeslava 1, Belgrade, Serbia ⁴ Department for Nanostructured Materials, Jožef Stefan Institute, Ljubljana, Slovenia ⁵ Institute of Nuclear Sciences Vinča, Belgrade University, P.O. Box 522, 11001 Belgrade, Serbia
P2-26	Synthesis and Characterization of Ferrite Nanoparticles prepared by a Water-in-Ionic Liquid Microemulsion Scano ¹ , M. Pilloni ² , G. Ennas ² , G. G. Fuentes ¹ , C. G. Polo ³ ¹ Centro de Ingeniería Avanzada de Superficies, AIN, Carretera Pamplona 1, Cordovilla, 31191 Pamplona, Spain. ascano@ain.es ² Dipartimento di Scienze Chimiche, Università di Cagliari, 09042 Monserrato, Cagliari, Italy. ³ Departamento de Física, Edificio de los Acebos, Campus de Arrosadia Universidad Pública de Navarra, 31006 Pamplona, Spain.
P2-27	Nanocomposited anatase TiO₂ on LaAlO₃(100) surfaces by PLD D. Vlachos ^{1,2} , M. Misra ² , N. Fereshteh Saniee ² , D.P. Woodruff ² and C.F. McConville ² ¹ Department of Physics, University of Ioannina, 451 10 Ioannina, Greece ² Department of Physics, University of Warwick, Coventry, CV4 7AL UK.
P2-28	Rhodamine B based chemosensor : dual colorimetric detection Young-A Son ¹ , Hyungwook Yu ^{1,2} , Hyungjoo Kim ¹ , Sung-Hoon Kim ³ ¹ Department of Advanced Organic Materials Engineering, Chungnam National University, Daejeon, S. Korea ² School of Environmental and Information Sciences, Yokohama National University, Yokohama, Japan ³ Department of Advanced Organic Materials Science and Engineering, Kyungpook National University, Daegu, S. Korea
P2-29	Microstructure and properties of thin films formed by surface treatments based on Plasma Electrolytic Nitriding/ Carburizing/ Boriding of austenitic stainless steels V.A. Andrei ¹ , G.Oncioiu ¹ , C.Lungu ² , E.Coaca ¹ , S.Florea ¹ , O.Rusu ¹ , M.Minca ¹

	<p>¹ Institute for Nuclear Research, Pitesti, Romania ² National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania.</p>
P2-30	<p>2-propanol dehydrogenation with ZnO nanoparticles M.B. Akin, M. Oner <i>Yildiz Technical University, Chemical Engineering Department Davutpasa Campus, 34210 Istanbul, Turkey</i></p>
P2-31	<p>Memristive behaviour of Nb/NbOx/Nb structures prepared by local anodic oxidation Bařko, M. Bařková <i>Institute of Experimental Physics, Slovak Academy of Sciences Watsonova 47, 04001 Kořice, Slovakia</i></p>
P2-32	<p>Atomic force microscopy observations of carbon nanotubes functionalized by magnetite nanoparticles M. Bařková¹, Z. Mitroov¹, I. Bařko¹, N. Tomařoviov¹, I. Vavra² ¹<i>Institute of Experimental Physics, Slovak Academy of Sciences, Watsonova 47, 040 01 Kořice, Slovakia</i> ²<i>Institute of Electrical Engineering, Slovak Academy of Sciences,</i></p>
P2-33	<p>Solubilization of Multi-Wall Carbon Nanotubes by Synthetic Humic Acids Studied by ATR-FTIR Spectroscopy Eleni Bletsa^{a,b}, Yiannis Deligiannakis^a, Dimitrios Gourmis^b ^a<i>Laboratory of Physical Chemistry of Materials & Environment, Department of Environmental and Natural Resources Management, University of Western Greece, Seferi 2, GR-30100 Agrinio, Greece. e-mail: ideligia@cc.uoi.gr</i> ^b<i>Department of Materials Science and Engineering, University of Ioannina, GR-45100 Ioannina, Greece</i></p>
P2-34	<p>Quinoline-labeled polymers as potential luminescent sensors of alkylammonium-type surfactants or alkylamines in aqueous environment Thivaos¹, N. Lamprakis¹, G. Bokias^{1,2}, J. Kallitsis^{1,2} ¹<i>Department of Chemistry, University of Patras, GR-26504 Patras, Greece</i> ²<i>Foundation for Research and Technology-Hellas (FORTH) / Institute of Chemical Engineering Sciences (ICE-HT), P.O. Box 1414, GR-265 04 Rio-Patras, Greece</i></p>
P2-35	<p>CONTROLLING CHAIN CONFORMATION IN CONJUGATED POLYMERS USING SINGLE CHAIN SPECTROSCOPY AND DEFECT INCLUSION STRATEGIES Giannis Bounos¹, Subhadip Ghosh¹, Albert K. Lee¹, Joshua C. Bolinger¹, Rui Zhang¹, Richard A. Friesner², Colin Nuckolls², David R. Reichman², and Paul F. Barbara¹ ¹<i>Department of Chemistry and Biochemistry and the Center for Nano and Molecular Science and Technology, University of Texas, Austin, Texas 78712, USA</i> ²<i>Department of Chemistry, Columbia University, 3000 Broadway, New York, NY 10027, USA</i></p>
P2-36	<p>Au/MWCNTs Hybrid Based-Materials with Electrocatalytic Activity Towards Methanol Oxidation D. Buceta¹ C. E. Hoppe² and M. A. Lopez-Quintela¹ ¹<i>Department of Physical Chemistry and Applied Physics, University of Santiago de Compostela, E-15782, Santiago de Compostela, Spain.</i> ²<i>Institute of Materials Science and Technology (INTEMA), University of Mar del Plata (UNMdP) and National Research Council (CONICET), J. B. Justo 4302, 7600 Mar del Plata, Argentina</i></p>
P2-37	<p>Modeling and Analysis of an AFM Nanotip Interacting with Nanopatterned Surfaces D. Georgakaki¹, O.G. Ziogos², H.M. Polatoglou¹ ¹<i>Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece</i> ²<i>Department of Physics, National Technical University of Athens, 15780 Athens, Greece</i></p>
P2-38	<p>Polymeric Amine-Au complexes as versatile precursors for the synthesis of metallic nanostructures D. Buceta¹ C. E. Hoppe² and M. A. Lopez-Quintela¹ ¹<i>Department of Physical Chemistry and Applied Physics, University of Santiago de Compostela, E-15782, Santiago de Compostela, Spain.</i> ²<i>Institute of Materials Science and Technology (INTEMA), University of Mar del Plata (UNMdP) and National Research Council (CONICET), J. B. Justo 4302, 7600 Mar del Plata, Argentina.</i></p>
P2-39	<p>Incorporation of Single Wall Carbon Nanotubes in Mesoporous Titania for Improving Photoelectrode Conductivity in Dye Solar Cells T. Ivanovska^{1,2}, C. Dionigi¹, M. Bolognesi¹, M. Seri¹, H. Spasevska², G. Ruani¹ ¹<i>Consiglio Nazionale delle Ricerche (CNR), Istituto per lo Studio dei Materiali Nanostrutturati (ISMN), Via P. Gobetti 101, 40129 Bologna, Italy</i> ²<i>Faculty of Electrical Engineering and Information Technologies (FEIT), Ss. Cyril and Methodius University, Ruger Boskovic bb., 1000 Skopje</i></p>
P2-40	<p>Towards Nanoscale Resolution in Liquids Development and characterization of a new microfabricated TEM chip with electron-transparent microchannels for liquid and Pt electrode connection to the liquid E. Jensen^{1,2}, A. Burrows², K. Molhave¹ ¹<i>Technical University of Denmark (DTU Nanotech – Department of Micro- and Nanotechnology) Ørsted's Plads, Building 345E, 2800 Kongens Lyngby, Denmark</i> ²<i>Technical University of Denmark (DTU CEN – Center for Electron Nanoscopy) Fysikvej, Building 307 and 314, 2800 Kongens Lyngby, Denmark</i></p>

P2-41	<p>Nanomechanical integrity, structural analysis and thermal stability of Cu-Al₂O₃ nanocomposites for FGM application E. P. Koumoulos^a, C. A. Charitidis^a, A. Tsetsekou^b, I.A.Kartsonakis^a, A. Bakolas^a, N.M. Daniolos^c, K. Pietrzak^d ^aNational Technical University of Athens, School of Chemical Engineering, 9 Heroon, Polytechniou st., Zografos, Athens, GR-15780, Greece ^bNational Technical University of Athens, School of Mining Engineering and Metallurgy, 9 Heroon, Polytechniou st., Zografos, Athens, GR-15780, Greece ^cNational Technical University of Athens, School of of Naval Architecture and Marine Engineering, 9 Heroon, Polytechniou st., Zografos, Athens, GR-15780, Greece ^dInstitute of Electronic Materials Technology, 133 Wolczynska Str., 01-919 Warsaw, Poland</p>
P2-42	<p>Nanomechanical properties of FINEMET-type thin films deposited by HiPIMS for sensing applications E.P. Koumoulos¹, I.L. Velicu², V.P. Tsikourkitoudi¹, C.A. Charitidis¹, M. Neagu², V. Tiron² ¹National Technical University of Athens, School of Chemical Engineering, Athens, Greece GR-157 80 ²Physics Department, Alexandru Ioan Cuza University, Carol I Blvd. No. 11, 700506, Iasi, Romania</p>
P2-43	<p>Applications of Nanomaterials and Nanotechnology in Civil Engineering: An Overview A.Livaniou, T. E. Karakasidis Department of Civil Engineering, University of Thessaly, Pedion Areos, 38334 Volos, Greece</p>
P2-44	<p>Silver nanoparticles-decorated carbon nanofibers composite electrodes for pharmaceuticals detection F.Manea¹, A. Pop¹, S. Motoc¹, A. Baciu¹, A. Jakob¹, G. Burtica¹, J. Schoonman² ¹Applied Chemistry and Engineering of Inorganic Compounds and Environment Department, "Politehnica" University of Timisoara, Victoriei Sq. no. 2, 300006, Romania ²Materials for Energy Conversion and Storage, Department of Chemical Engineering, Delft University of Technology, Julianalaan 136, 2628BL, Delft, The Netherlands</p>
P2-45	<p>Room temperature synthesis of nanometric Bi₂O₃ doped with Ce M. Prekajski¹, J. Pantić¹, J. Luković¹, N. Stanković¹, A. Kremenović², B. Matović¹ ¹Institute of Nuclear Sciences "Vinca", University of Belgrade, P.O. Box 522, 11000 Belgrade, Serbia ² Faculty of Mining and Geology, University of Belgrade, Đušina 7, 11000 Belgrade, Serbia</p>
P2-46	<p>Phase evolution of amorphous YAG during annealing Jelena Pantić¹, Marija Prekajski¹, Nadežda Stanković¹, Jelena Luković¹, Tamara Minović¹, Aleksandar Kremenović², Branko Matović¹ ¹Department of Material Science, University of Belgrade, INN VINČA, Mike Petrovića-Alasa 12-14, Belgrade, Serbia ²Laboratory for Crystallography, University of Belgrade, Faculty of Mining and Geology, Đušina 7, Belgrade, Serbia</p>
P2-47	<p>Electrochemical detection of chloro- and nitro- phenols on carbon-nanotubes composite electrode A.Pop¹, F. Manea¹, C. Orha^{2,3}, A. Baciu¹, J. Schoonman⁴ ¹Faculty of Industrial Chemistry and Environmental Engineering, "Politehnica" University of Timisoara, Romania, e-mails: aniel.a.pop@chim.upt.ro, florica.manea@chim.upt.ro ²NIRD in Microtechnologies, Bucharest, Romania ³NIRD in Electrochemistry and Condensed Matter, Timisoara Romania ⁴Department of Chemical Engineering, Delft University of Technology, The Netherlands</p>
P2-48	<p>Surface characterization of graphene formed by CVD technique on SiC.. M. Kluz¹, I. Rytarowska¹, E. Łacińska¹, J.Szczytko¹, K. Grodecki^{1,2}, W.Strupiński², J.M. Baranowski^{1,2}, R.Stępniewski², A. Wymotek² ¹Nanostructures Engineering, Faculty of Physics, University of Warsaw, ul. Hoża 69, PL-00-681 Warszawa, Poland ²Institute of Electronic Materials Technology, Wólczyńska 133, 01-919 Warsaw, Poland</p>
P2-49	<p>Fluid/wall interactions in a nanofluidic system: the interface region F. Sofos, T.E. Karakasidis, A. Liakopoulos Laboratory of Hydromechanics and Environmental Engineering, Department of Civil Engineering, School of Engineering, University of Thessaly, 38834 Pedion Areos, Volos, Greece</p>
P2-50	<p>Synthesis and characterization of in situ functionalized iron oxide nanoparticles A. Skarmoutsou¹, A. Chatzipavlidis^{1,2}, V. Malamas¹, I. Kartsonakis², G. Kordas², C.A. Charitidis¹ ¹School of Chemical Engineering, National Technical University of Athens, 9 Heroon Polytechniou St., Zographos, Athens, Greece GR-157 80 ²Sol-Gel Laboratory, Institute of Materials Science, NCSR "Demokritos" 15310 Agia Paraskevi, Athens, Greece</p>
P2-51	<p>Pulsed laser in situ deposition of hybrid inorganic-organic nanocomposite Coatings V. Serbezov^{a,b} and Pl. Penchev^b ^aVSS-VS Ltd., Veliko Turnovo 55A, Plovdiv, Bulgaria ^bPlovdiv University "P. Hilendarskii", Tzar Asen 24, 4000 Plovdiv, Bulgaria</p>
P2-52	<p>The studying of influence of interphase reactions to the physicochemical properties of nanosized cermet. K. Chuprunov, D. Kuznetsov, V. Levina, E. Kolesnikov, A. Yudin</p>

	<i>National University of Science and Technology "MISIS", Department of Functional nanosystems and high temperature processes 119049, Moscow, Leninsky prospekt 4, MISIS</i>
P2-53	<p>First-principles electronic transport calculations of nanocarbon materials H. Takaki¹, N. Kobayashi¹, K. Hirose² ¹Institute of Applied Physics, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8573, Japan ²NEC Corporation, 34 Miyukigaoka, Tsukuba, Ibaraki 305-8501, Japan</p>
P2-54	<p>Self-Organized Composite Nanostructures Composed of Planar Graphite Layers and Carbon Nanotubes A. Prudnikava¹, B. Shulitski¹, E. Tamashevich¹, V. Labunov¹, M. Shakerzadeh², B.K. Tay², V. Galperin³, Y. Shaman³, and A. Basaev³ ¹Belarusian State University of Informatics & Radioelectronics, Brovka St.6, 220013 Minsk, Belarus, ²Nanyang Technological University, 50 Nanyang Avenue, 639798, Singapore ³SMC Technological Center, K-498, Moscow 103498, Russia</p>
P2-55	<p>Nanotechnology products applications in the preservation of heritage objects N.Vornicu¹, C. Bibire¹, M.Pruna², M.Geba³ ¹Metropolitan Research Center T.A.B.O.R, 9 Closca Street, 700066 Iasi, Romania ²Research Institute for Construction Equipment and Technologies, 266 Pantelimon Sos., Bucharest, Romania ³'Moldova' National Museum Complex of Iasi, 1 Stefan cel Mare Blvd., 700124 Iasi, Romania</p>
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P2-117	<p>Nanoarchitecture and global warming <u>Ossama Mohamed Omar</u> Architecture Department, Alexandria University, Bibliotheca Alexandrina, P.O. Box 138, El Chatby, Alexandria 21526, Engineering Dept, Egypt</p>
P2-118	<p>Model of the nonlinear van der Waals interaction between the different shaped dielectric nanoparticles <u>V. Piatnytsia</u>, V. Lozovski Department of Mathematics, Theoretical Physics and Computer Sciences, Institute of High Technologies, National Taras Shevchenko University of Kyiv, 64 Volodymyrska str, Kyiv, 01601, Ukraine</p>
P2-119	<p>Fabrication and characterization of Fe₃O₄ nanoferro fluid using electrooxidation Saba Mosivand, <u>Iraj Kazeminezhad</u> Physics Department, Shahid Chamran University, Ahvaz, Iran</p>
P2-120	<p>The amplitude scattering matrix of nano – particles by asymptotic approaches <u>J. Sadeghi</u>¹, A. A. Hosseini¹, H. Ghorbanpour¹, Ali R. Amani² ¹Sciences Faculty, Department of Physics, Mazandaran University, P.O. Box 47416-95447, Babolsar, Iran ²Department of Physics, Islamic Azad University, Ayatollah Amoli Branch, P.O. Box 678, Amol, Mazandaran, Iran</p>
P2-121	<p>Effect of Nano-Silica on Alkali Activated Water-Cooled Slag Geopolymer <u>H.M.Khater</u>, B.A.El-Sabbagh, M.Fanny, M.Ezza, M.Lottfy Housing and Building National Research Centre (HBNRC) 87 El-Tahrir St., Dokki, Giza, P.O. Box 1770 Cairo</p>
P2-122	<p>H₂O₂ decomposition over nano-crystalline Ni_{Lax}Fe_{2-x}O₄ prepared via the combustion route</p>

	<p>Bahaa M. Abu-Zieda^b, Abdullah M. Asiri^a ^a Center of Excellence for Advanced Materials Research, Chemistry Department, Faculty of Science, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia ^b Chemistry Department, Faculty of Science, Assiut University, 71516 Assiut, Egypt</p>
P2-123	<p>Novel nanocomposites of modified nano clays S. Sedaghat¹ and Sh. Ghamamy² ¹Chemistry Department, Islamic Azad University, Malard Branch, Malard, Iran ²Chemistry Department, Imam Khomeini International University, Qazvin, Iran</p>
P2-124	<p>Preparation of nanophotocatalyst based nano-sized Cus loaded on x-zeolite and study of photocatalytic activity ¹N. Farhadyar*, ²M. S. Sadjadi ¹Department of Chemistry, Faculty of Basic Sciences, varamin –pishva Branch , Islamic Azad University, Iran ²Department of Chemistry, Faculty of Basic Sciences, Science and Research Branch, Islamic Azad University, Tehran Iran,</p>
P2-125	<p>Synthesis and antifungal activity against Candida albicans of Ag nanoparticles embedded mesoporous SiO2 nanosphere M. Qasim¹, Braj R. Singh¹, A. H. Naqvi¹, P. Paik², and D. Das² ¹Centre of Excellence in Materials Science (Nanomaterials), Department of Applied Physics, Z.H. College of Engg.& Tech., Aligarh Muslim University, Aligarh 202002, India ²School of Engineering Sciences and Technology, University of Hyderabad, Hyderabad 500046, India</p>
P2-126	<p>Detection and Determination of Glutamine, Glycine, Leucine, Proline, and Perphenazine by ZnS nanoparticle Probes Iraj Kazeminezhad¹, Mehrnaz Karimi¹, Zahra Ramezani² ¹. Physics Department, Shahid Chamran University, Ahvaz, Iran ². Ahvaz Jundi Shapour University of Medical Sciences, School of Pharmacy Ahvaz, Iran</p>
P2-127	<p>Sono, Sonocatalytic, Photocatalytic and Sonophotocatalytic degradation of water pollutants over Iron Oxide nanoparticles Arwa A. Salem^a, Hana Al-Helal^b, Abdullah M. Asiri^{c,d}, Muhammed S. Al-Amoudi^{a*}, Naif A. Alsharbar^a ^a Chemistry Department, Faculty of Science , Taif University, Taif , Saudi Arabia ^b Chemistry Department, Faculty of Science, King Abdulaziz University, Jeddah 21589, P. O. Box 80203, Saudi Arabia ^c Center of Excellence for Advanced Materials Research , King Abdulaziz University, Jeddah 21589, P. O. Box 80203, Saudi Arabia</p>
P2-128	<p>Preparation and Characterization of Carbon Nanotube / High Density Polyethylene Composites Dike, Ali Sinan¹, Mindivan, Harun¹ Metallurgical and Materials Engineering Dept. Atatürk University, Ataturk University, Faculty of Engineering, Turkey</p>
P2-129	<p>Evidence for the formation of modulated phases in 4H- and 6H-SiC samples after N-implantation A. Breza¹, N. Frangis¹, K. Zekentes², Katerina Tsagaraki² ¹ Department of Physics, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece ²MRG-IESL/ FORTH, Vassilika Vouton, PO Box 1385 Heraklion, Greece</p>
P2-130	<p>The influence of the chemical composition of borophosphate glasses on their structural and bioactive properties G. Melinte¹, I.J. Hidi¹, L. Baia¹, R. Stefan², M. Bindea² ¹Faculty of Physics & Institute for Interdisciplinary Research on Bio-Nano-Science, Babes-Bolyai University, M. Kogalniceanu 1, Cluj-Napoca 400084, Romania ² Faculty of Veterinary Medicine, University of Agricultural Science and Veterinary Medicine, Calea Manastur 3-5, Cluj-Napoca 400372, Romania</p>
P2-131 LMP	<p>An influence of Pd nanograins on the optical properties of C-Pd nanocomposite thin films M. Suchanska, R. Belka Division of Photonics and Electronic Nanomaterials, Kielce University of Technology, 25-413 Kielce, Al. Tysiąclecia P.P. 7, Poland</p>

Workshop 3 – Nanomedicine

POSTER SESSION II: Posters of Workshop 2 (P2-71 to P2-130), Workshop 3 & Workshop 4 on Thursday, 5 July & Friday 6 July

Chair: Anastasiadis S., Tagmatarchis N., P. Kavatzikidou

P3-1	<p>Bulk Nanobiocomposites With Multiwalled Carbon Nanotubes L.P. Ichkitidze^{1*}, S.V. Selishchev¹, L.V. Tabulina², B.G. Shulitski², V.A. Galperin³, Yu.P. Shaman³, and E.V. Blagov⁴ ¹National Research University "MIET", dep. BMS, MIET, Zelenograd, Moscow, 124498 Russia ²Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus ³SRC SMC "Technological Centre", 124498 Moscow, Russia</p>
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	⁴ <i>Institute of nanotechnology of microelectronics RAS, 119991 Moscow, Russia</i>
P3-2	Electroconductive Composite Nanomaterial With Multiwalled Carbon Nanotubes L.P. Ichkitidze ¹ , B.M. Putria ¹ , S.V. Selishchev ¹ , V.A. Galperin ² , A.A. ¹ <i>National Research University "MIET", dep. BMS, MIET, Zelenograd, Moscow, 124498 Russia</i> ² <i>SRC SMC "Technological Centre", 124498 Moscow, Russia</i> ³ <i>Institute of nanotechnology of microelectronics RAS, 119991 Moscow, Russia</i>
P3-3	Nanosolders for Laser Welding of Biological Tissues A.Yu. Gerasimenko, L.P. Ichkitidze, V.M. Podgaetsky, S.V. Selishchev <i>National Research University "MIET", dep. BMS, MIET, Zelenograd, Moscow, 124498 Russia</i>
P3-4	Investigation of liposomes as adjuvants in dosage form of terbinafine Koutsoulas Charalampos, Zabka Marian <i>Comenius University in Bratislava. Faculty of Pharmacy, Department of Galenic Pharmacy. Odbojárrov 10, 832 32 Bratislava, Slovakia</i> <i>Preparation and Characterization Of Liposomes, Study Of Liposomes As Adjuvants In Dosage Form Of Terbinafine.</i>
P3-5	Preparation, physicochemical characterization and elucidation of stealth liposomal nanocarriers' morphology in accordance to fractal analysis F. Psarommati ¹ , N. Pippa ^{1,2} , S. Pispas ² , C. Demetzos ¹ , ¹ <i>Department of Pharmaceutical Technology, Faculty of Pharmacy, Panepistimioupolis Zografou 15771, National and Kapodistrian University of Athens, Athens, Greece</i> ² <i>Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, 48 Vassileos Constantinou Ave., 11635, Athens, Greece</i>
P3-6	Preparation and physicochemical characterization of liposomal nanoparticles incorporating bioactive derivative of curcumin M.Hadjidemetriou, N. Pippa, C. Demetzos <i>Department of Pharmaceutical Technology, Faculty of Pharmacy, Panepistimioupolis Zografou 15771, National and Kapodistrian University of Athens, Athens, Greece</i>
P3-7	PEO-b-PCL grafted DPPC liposomes: self-assembly, stability and fractal analysis of novel Advanced Drug Delivery nano Systems (aDDnSs) N. Pippa ^{1,2} , S. Pispas ¹ , C. Demetzos ¹ , ¹ <i>Theoretical and Physical Chemistry Institute, National Hellenic Research Foundation, 48 Vassileos Constantinou Ave., 11635, Athens, Greece</i> ² <i>Department of Pharmaceutical Technology, Faculty of Pharmacy, Panepistimioupolis Zografou 15771, National and Kapodistrian University of Athens, Athens, Greece</i>
P3-8	Biophotonics at the University of Liège : on the use of nanoparticles and optical fibers to improve biosensors efficiency L. Dreesen ¹ , M. Lismont ¹ , N. Vandewalle ¹ , B. Busson ² , A. Gayral ² , C. Humbert ² , ¹ <i>GRASP_Biophotonics, Department of Physics, University of Liège Institute of Physics, B5, 4000 Liege, Belgium</i> ² <i>Univ Paris-Sud, Laboratoire de Chimie-Physique, CNRS, Bâtiment 201 Porte 2, 91405 Orsay, France</i>
P3-9	AFM Characterization of Collagen Thin Films for Assessing Fibroblasts Response on Collagen Nanotopography A. Stylianou, D. Yova, A. Petri <i>Biomedical Optics and Applied Biophysics Laboratory, School of Electrical and Computer Engineering, National Technical University of Athens Iroon Polytechniou 9, Athens, 15780 Greece</i>
P3-10	Fundamental aspects of biomaterials creation on the basis of nanostructured hydrogel-apatite-noble metal composites Sukhodub L.F., Kornushchenko G.S <i>Sumy State University, Medical institute, Biophysics, biochemistry, pharmacology and bimolecular engineering chair, 2 Rimskii-Korsakov St., 40007 Sumy, Ukraine</i>
P3-11	NANOFORCE- Nanotechnology for Chemical Enterprises – how to link scientific knowledge to the business in the Central Europe A. FALK ¹ , S. HARTL ¹ , F. SINNER ^{1,2} ¹ <i>BioNanoNet Forschungsgesellschaft mbH, Elisabethstraße 9-11, 8010 Graz, Austria</i> ² <i>Institute for Biomedicine and Health Sciences, Joanneum Research, Graz, Austria</i>
P3-12	Experimental data for comparative assessment of the pulmonary phagocytosis response to some metallic nanoparticles L.I. Privalova ¹ , B.A. Katsnelson ¹ , M.P. Sutunkova ¹ , V.Ya. Shur ² , E.V. Shishkina ² , L.G. Tulakina ³ , S.V. Pichugova ³ , J.B. Beikin ³ ¹ <i>The FBIS Medical Research Center for Prophylaxis and Health Protection in Industrial Workers, 30 Popova Str. Ekaterinburg 620014, Russia</i> ² <i>The Center of the Joint Usage "Modern nanotechnologies" of the Ural State University, 51 Lenina Str. Ekaterinburg 620083, Russia</i> ³ <i>Municipal agency "Clinical and Diagnostic Center", 38 Dekabristov Str. Ekaterinburg 620142, Russia</i>
P3-13	Integrated NP-based Approach for Detection of Oxidative Stress Biomarkers in vivo G. Stübiger ¹ , M. Wuczowski ² , H. Hinterwirth ³ , M. Lämmerhofer ⁴ , W. Lindner ³ , H. Vetr ² and O.Belgacem ⁵ ¹ <i>Center for Physiology and Pharmacology, Medical University Vienna, Schwarzschanerstr. 17, A-1090 Vienna, Austria;</i> ² <i>Technoclone GmbH, Brunner Str. 67, A-1230 Vienna, Austria;</i>

	³ Institute of Analytical Chemistry, University of Vienna, Währingerstrasse 38, A-1090 Vienna, Austria; ⁴ Institute of Pharmaceutical Sciences, University of Tuebingen, Auf der Morgenstelle 8, 72076 Tuebingen, Germany; ⁵ Shimadzu, Wharfside, Trafford Wharf Road, Manchester M17 1GP, UK
P3-14	Nanoencapsulation of saquinavir aiming antiretroviral therapy improvement I.C. Kulkamp-Guerreiro, K. Krieser, F. Manica, S.S. Guterres Universidade Federal do Rio Grande do Sul/Porto Alegre, Brasil
P3-15	Toxicological assessment of polymer-modified Carbon Nanotubes Ch. Gialeli ^{1,2} , N.Koromilas ^{1,2} , G.Ch. Lainioti ^{1,2} , K.B Kouravelou ³ , G.A. Voyiatzis ¹ , N.K. Karamanos ^{1,2} , J. Kallitsis ^{1,2} ¹ Foundation for Research and Technology-Hellas (FORTH) / Institute of Chemical Engineering Sciences (ICE-HT), P.O. Box 1414, GR-265 04 Rio-Patras, Greece ² Department of Chemistry, University of Patras, GR-26504 Patras, Greece ³ NanoThinX S.A., GR-265 04 Rio-Patras, Greece
P3-16	NAD-Nanoparticles for Therapy and Diagnosis of Alzheimer Disease M. Masserini, A. Monti Affiliation (University Milano-Bicocca , Dept. Experimental Medicine) Via Cadore, 48 -20900 Monza (MB) Italy
P3-17	Standards for validation of nano-scaled diamond particles to be used in in facial bone tissue engineering M. Schimke ¹ , S. Ghodbane ² , D. Steinmüller-Nethl ² , G. Lepperdinger ¹ ¹ Institute for Biomedical Aging Research (IBA), Austrian Academy of Science (ÖAW), Rennweg 10, 6020 Innsbruck, Austria; Magdalena.Schimke@oeaw.ac.at ² KOMET RHOBEST GmbH, Exlgasse 20a, 6020 Innsbruck, Austria. www.dialife.org
P3-18	Aqueous suspensions of superparamagnetic nanoparticles synthesized by laser pyrolysis C.R. Luculescu ¹ , F. Dumitrache ¹ , I. Morjan ¹ , S. Bengea ² , O. Crisan ³ , I. Stamatina ⁴ ¹ National Institute for Laser, Plasma and Radiation Physics Atomistilor 409, 077125 Magurele, Romania ² Titu Maiorescu University, Calea Vacaresti 187, Bucharest, Romania ³ National Institute for Material Physics, Atomistilor 105, Magurele, Bucharest, Romania ⁴ Faculty of Physics, Bucharest University, Bucharest, Romania
P3-19	Synthesis and biological activity of novel water-soluble fullerene derivatives A. Kornev ¹ , A. Peregodov ² , J. Balzarini ³ , A. Kushch ⁴ , D. Deryabin ⁵ , P. A. Troshin ¹ ¹ Institute for Problems of Chemical Physics of Russian Academy of Sciences, Semenov Prospect 1, Chernogolovka, Moscow region, 142432, Russia ² A. N. Nesmeyanov Institute of Organoelement Compounds, 1 Vavilova St. 28, B-334, Moscow, 119991, Russia ³ Rega Institute for Medical Research, Laboratory of Virology and Chemotherapy, Minderbroedersstraat 10, Leuven, B-3000Belgium ⁴ D. I. Ivanovsky Institute of Virology of the Ministry of Health and Social Development of the Russian Federation (IV MHSDRF), Gamaleya str. 16, Moscow, 123098, Russia ⁵ Orenburg State University, Pobedi st., 13, GSP, Orenburg, 460018, Russia
P3-20	Incorporation, distribution and stability of new type maghemite nanoparticles inside mesenchymal stem cells Josef Skopalik ¹ , Marketa Svatakova ² , Katerina Polakova ² , Jaroslav Michalek ¹ ¹ ACIU (Masaryk University, Brno), ² Faculty of Science (Palacky University, Olomouc) Czech Republic
P3-21	Characterization of magnetic nanoparticles in different physiological media – effect on stability, agglomeration and zeta potential V. B. Bregar, M. Pavlin Faculty of Electrical Engineering, University of Ljubljana, SI-1000 Ljubljana, Slovenia
P3-22	Interaction of biofilms with biomedical surfaces and development of novel control strategies based on nanobiotechnology C. Sousa, ¹ D. Y. Petrovykh, ² R. Oliveira ¹ ¹ IBB-Institute for Biotechnology and Bioengineering, Centre of Biological Engineering, University of Minho, Campus de Guaitar, 4710-057 Braga, Portugal ² International Iberian Nanotechnology Laboratory (INL) Av. Mestre José Veiga, 4715-330 Braga, Portugal
P3-23	Synthesis of Magnetic Nanoparticles as contrast agents for the MRI Detection of early Prostate Cancer Evdokia Patrikiadou ¹ , Lori Nalbandian ¹ , Vassilis Zaspalis ¹ , Anna Patrikidou ² , Eleana Chatzidaki ² , Christos N. Papandreou ² ¹ Laboratory of Inorganic Materials, Chemical Process Engineering Research Institute CPERI/CERTH, P.O. BOX 60361 GR - 570 01 Thessaloniki, GREECE ² Department of Medical Oncology, University Hospital of Larisa and Department of Medicine, School of Health Sciences, University of Thessaly, GREECE

P3-24	<p>Multifunctional nanocontainers for combination of various nanomedicinal modalities A. Chatzipavlidis^{1,2}, P. Bilalis², L.-A. Tziveleka², N. Boukos², G. Kordas² and C.A. Charitidis¹ ¹ National Technical University of Athens, School of Chemical Engineering, Athens, Greece ² Institute of Materials Science, NCSR "Demokritos", Athens, Greece</p>
P3-25	<p>Cellular Route Of Gold Nanoparticles And Their Biological Effects On Living Cells G. Tan^{1*} and M. A. Onur² ¹ Institute of Science, Department of Biology, Hacettepe University, Ankara 06800 Turkey ² Faculty of Science, Department of Biology, Hacettepe University, Ankara 06800 Turkey</p>
P3-26	<p>New advanced functional materials for anticancer drug targeted delivery M. Filippousi¹, S. Papadimitriou², E. Pavlidou¹, D. Zamboulis², N. Vouroutzis¹, D. Bikiaris², G. Van Tendeloo³ ¹ Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece ² Department of Chemistry, Aristotle University, GR-54124 Thessaloniki, Greece ³ EMAT, University of Antwerp, Groenenborgerlaan 171, B-2020 Antwerpen, Belgium</p>
P3-27	<p>Spectroscopic Ellipsometry Studies on Polymeric Films M. Gioti, V. Karagkiozaki, and S. Logothetidis Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, GR-54124, Greece</p>
P3-28	<p>Synthesis of biodegradable Nanoparticles for Drug Delivery A. Repanas¹, V. Karagkiozaki¹, D. G. Fatouros², S. Logothetidis¹ ¹ Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, GR-54124, Greece. ² Department of Pharmaceutical Technology, School of Pharmacy, Aristotle University of Thessaloniki, GR-54124, Greece</p>
P3-29	<p>Design and fabrication of Therapeutic Nanocoatings for Intraocular Lenses L. Lamprogiannis^{1,2}, V. Karagkiozaki¹, I. T Tsinopoulos², M. Gioti¹, D. Fatouros³, P.G. Karagiannidis¹, A. Basgiouraki¹, S. Logothetidis¹ ¹ Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, GR-54124, Greece ² 2nd Department of Ophthalmology, Aristotle University of Thessaloniki, Papageorgiou General Hospital ³ Department of Pharmaceutical Technology, School of Pharmacy, Aristotle University of Thessaloniki, GR-54124, Greece</p>
P3-30	<p>Development of novel nanomaterials for implants A. Basgiouraki¹, V. Karagkiozaki¹, D. Fatouros², P. G. Karagiannidis¹, M. Gioti¹, I. Vizirianakis², S. Logothetidis¹ ¹ Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, GR-54124, Greece ² School of Pharmacy, AUTH, Greece</p>
P3-31	<p>Synthesis of Polymeric PLGA Nanoparticles for Mucosal Administration of Antigens A-M Pappa¹, P. Arsenidis¹, K. Kontonikola¹, O. Kammona², C. Kiparissides^{1,2}, ¹ Department of Chemical Engineering, Aristotle University of Thessaloniki, P.O. Box 472, 54124 Thessaloniki, Greece ² Chemical Process Engineering Research Institute, Centre for Research and Technology Hellas, P.O. Box 60361, 57001 Thessaloniki, Greece</p>
P3-32	<p>Poly(D,L-Lactic-co-Glycolic Acid) nanoparticles surface modified with a TNFα peptide enhance in vitro targeting of dendritic cells M. Margaroni¹, M. Agallou¹, K. Kontonikola^{2,3}, K. Karidi², E. Dotsika¹, O. Kammona², C. Kiparissides^{2,3}, E. Karagouni¹ ¹ Laboratory of Cellular Immunology, Department of Microbiology, Hellenic Pasteur Institute, 127 Vas. Sofias av. 115 21 Athens, Greece. ² Department of Chemical Engineering, Aristotle University of Thessaloniki, P.O. Box 472, 54124 Thessaloniki, Greece ³ Laboratory of Polymer Reaction Engineering, Chemical Process Engineering Research Institute, The Center for Research and Technology Hellas, 60Km Xarilaou-Thermis str, Thessaloniki, Greece</p>
P3-33	<p>Specific absorption rate of superparamagnetic magnetite nanoparticles suitable for magnetic hyperthermia E. Garaio¹, F. Plazaola¹, J.M. Collantes¹, I. Castellanos², M. Insausti², I. Gil de Muro², and J.A Garcia³ ¹ Elektrizitatea eta Elektronika Saila, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain ² Kimika Ezorganikoa, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain; ³ Fisika Aplikatua II, Zientzia eta Teknologia Fakultatea, UPV/EHU, PK 48940, Leioa, Spain;</p>
P3-34	<p>Visualization of internalization pathways of polyacrylic acid functionalized cobalt ferrite nanoparticles and their intracellular fate J. Lojk¹, M. Stražišar¹, V. B. Bregar¹, V. Šuštar^{1,2}, P. Veranič², M. Pavlin¹ (1) Faculty of Electrical Engineering, University of Ljubljana, SI-1000 Ljubljana, Slovenia (mojca.pavlin@fe.uni-lj.si) (2) Faculty of Medicine, University of Ljubljana, SI-1000 Ljubljana, Slovenia</p>

P3-35	miRNAs bind to mRNAs in sites encoding conserved oligopeptides A.T. Ivashchenko, A. Issabekova, O. Berillo <i>National Nanotechnology Laboratory, al-Farabi Kazakh National University, Almaty, Kazakhstan</i>
P3-36	Neural Networks Of A Whole Mind For Diagnosis in Nanomedicine V.M. Koleshko ¹ , Y.A. Varabei ¹ , N.V. Khmurovich ² <i>1Dept. of Intelligent Systems, Belarusian National Technical University (BNTU) 220013, Minsk, Nezavisimosti Av., 65, bldg. № 14 2Dept. Of Pharmaceuticals Industry of Ministry of Health of the Republic of Belarus, Scientific-Production Republican Unitary Enterprise «LOTIOS»</i>
P3-37	Study of Immunocompatibility of Metallic Thin Films & Medical Devices By In-Vitro Measurement of Complement C5 Convertase [C5c] with a Sandwich Elisa Technique Milka J.Janjić ¹ , P. Kavatzikidou ¹ , N. Kalfagiannis ¹ , M. Gioti ¹ , V. Karagkiozaki ¹ , P. Patsalas ² , E. Pavlidou ² , S. Logothetidis ¹ <i>1 Laboratory for Thin Films – Nanosystems and Nanometrology, Department of Physics, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece 2 Department of Materials Science and Engineering, University of Ioannina, GR-45110 Ioannina, Greece 3 Department of Physics, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece</i>
P3-38	Silver nitrate nanoparticle preconditioning of brain: A possible role of free radical mediated nuclear factor kappa-B activation linked mechanism. A. K. Rehni ¹ , T.G. Singh ¹ , M. Chitkara ² , I.S. Sandhu ² and S.Kumar ² <i>¹ Chitkara College of Pharmacy, Chitkara University, Rajpura-140401 Punjab, India ² Nanomaterials Research Laboratory, Chitkara University, Rajpura-140401 Punjab, India</i>
P3-39	Synthesis and Characterization of surface modified magnetic iron oxide nanoparticles for biological use K. Zare ^{1,2,*} , A. Sharafi ¹ and Mirabdollah SeyedSadjadi ¹ <i>¹ Department of Chemistry, Science and Research Branch, Islamic Azad University, Tehran, Iran ² Department of Chemistry, University of Shahid Beheshti, Even, Tehran, Iran</i>
P3-40	Evolution of Nanomedicine Development Michos K., Chatzopoulou G., Kapnopoulos C., Chachamidou M., Logothetidis S. <i>Aristotle University of Thessaloniki, Department of Physics, Lab for Thin Films- Nanosystems & Nanometrology (LTFN), GR-54124 Thessaloniki, Greece</i>
P3-41	Responsive Nanoparticles for In-vivo Sensing and Bio-Imaging R. Popovtzer, R. Ankri, D. Peretz, M.Motie <i>Faculty of Engineering & the Institute of Nanotechnology and Advanced Materials Bar-Ilan University, Ramat Gan 52900, Israel</i>
P3-42	Polyamidoamine Nanoparticles with Reduced Toxicity for Plasmid DNA Delivery A.Dehshahri ¹ , A.Jamshidzadeh ² , Z.Sabahi ¹ , F.Shanbedi ¹ <i>¹Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, P.O. Box 71345-1583, Shiraz, Iran ²Department of Toxicology and Pharmacology, Faculty of Pharmacy, Shiraz University of Medical Sciences, P.O. Box 71345-1583, Shiraz, Iran</i>
P3-43	Polyethylenimine Nanoparticles for Efficient Transfer of Plasmid Encoding Interleukin-12 Gene into HepG2 and Neuro2a Cell Lines S.Hossaini Alhashemi, A. Dehshahri <i>Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, P.O. Box 71345-1583, Shiraz, Iran</i>
P3-44	The usage of micronutrients of vegetable origin for nanostructure control and creation of functional types of butter T.Rashevskaya, S.Ivanov <i>National University of Food Technologies, 01601, 68 Volodymyrska st, Kiev, Ukraine</i>
Workshop 4 – Bioelectronics	
POSTER SESSION II: Posters of Workshop 2 (P2-71 to P2-130), Workshop 3 & Workshop 4 on Thursday, 5 July & Friday 6 July	
Chair: Anastasiadis S., Tagmatarchis N., P. Kavatzikidou	
P4-1	Excimer Laser Synthesis of Metal Nanoparticles on Functional Dielectric Hosts for Plasmonic chemical Sensors M.J.Beliatis, S.J.Henley, S. R. P. Silva <i>Nanoelectronics Center, Advanced Technology Institute University of Surrey, Guilford, UK.</i>
P4-2	A novel assay for detection platform based on oxygen plasma treated SWCNT through electrical property J. Y. Lee ¹ , M. J. Song ² , Y. E. Kim ³ , C. W. Park ⁴ , N. K. Min ¹

	<p>¹Department of Biomicrosystem technology, Korea University, Seoul, Sungbuk-Ku, Korea</p> <p>²Department of Materials Science and Engineering, Korea University, Sungbuk-Ku, Korea</p> <p>³Battelle Korea, Korea University, Sungbuk-Ku, Korea</p> <p>⁴Department of Electrical and Electronic Engineering, Kangwon National University, Chuncheon, Gangwon-do, Korea</p>
P4-3	<p>Effect of the Surface Properties and Redox States of PEDOT Nanomaterials for Tissue Engineering</p> <p><u>E. Georgharaki</u>¹, V. Karagkiozaki¹, P.G. Karagiannidis¹, G. Malliaras², E. Kavatzikidou¹, M. Gioti¹, S. Logothetidis¹</p> <p>¹Nanomedicine Group, Lab for "Thin Films -Nanosystems & Nanometrology", Department of Physics, Aristotle University of Thessaloniki, GR-54124, Greece</p> <p>²Dept. of Bioelectronics, Ecole National Supérieure des Mines de St. Etienne, France</p>
P4-4	<p>Specific detection of Campylobacter jejuni and Campylobacter coli using lytic phages</p> <p><u>C. Carvalho</u>^{1,2}, V. Romão², E. Fernandes¹, J. Azeredo¹, J.Rivas², P. Freitas²</p> <p>¹IBB-Institute for Biotechnology and Bioengineering, Centre of Biological Engineering, University of Minho, Campus de Gualtar, 4710-057 Braga, Portugal</p> <p>²International Iberian Nanotechnology Laboratory, Avenida Mestre José Veiga, 4715-330 Braga, Portugal</p>
P4-5 LMP	<p>Monitoring Drug-Induced Cellular Stress by Organic Electrochemical Transistors</p> <p>R. Agostino</p> <p>IMEM-CNR, Parma, Italy</p>