7th International Conference – NN10 & 4th International Summer School – ISSON10 on Nanosciences & Nanotechnologies

"…where Sciences meet together…"

Alexandros Palace Hotel, 11-14 July 2010
Ouranoupolis, Halkidiki, Greece

Program

Sunday 11 July		
Alexandros Palace Hotel, Conference Room A		
	17:00 – 19:00	**Registration to NN10 (Location Corridor of the Conference Room A)**
	19:00 – 19:20	**Welcome** **S. Logothetidis, NN10 Chairman**
KL1	19:20 – 20:00 Keynote Talk	**CELL MECHANICS** K. Komvopoulos *Department of Mechanical Engineering, University of California, Berkeley, USA*
	21:00	**Welcome Reception**
Monday 12 July		
Alexandros Palace Hotel, Conference Room A		
	08:00 – 09:00	Registration to NN10 (Location Corridor of the Conference Room A)
Conference Room A		**Session 1** **WORKSHOP 1 – Organic Electronics - Photonics & Nanoelectronics &** **WORKSHOP 2 - NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**
I1.1	09:00 – 09.30 Invited	**Nitride based UV Emitters and their applications** Th. D. Moustakas *Dep. of Electrical Engineering and Physics and Centre for Photonics Research, Boston University, USA*
I1.2	09.30 – 10.00 Invited	**Device Physics of Organic Electrochemical Transistors** G. Malliaras *Dep. of Bioelectronics, Centre Microélectronique de Provence, Ecole Nationale Supérieure des Mines de Saint Etienne, France*
W1-O1.3	10:00 – 10:15	**Josephson Tunnelling in Hybrid Nano-NIS Diodes: a device approach** AC Varonides, M Kennedy, J Hurley and T Swartz *Physics & Electrical Engineering Dept, University of Scranton, Scranton PA, USA*

W1-O1.4	10:15 – 10:30	**Obtaining High Performance OPV via Controlling Morphology of Polymer:Fullerene** R. Xia*[1] W. C. Tsoi[1] T. Agostinelli[1] J-S. Kim[1] D. D. C. Bradley[1] J. Nelson[1] H. Wu[2] J. Peng[2] Y. Cao[2] Z. Feng[3] Y. Hou[3] [1.] *Experimental Solid State Physics Group, Department of Physics and Centre for Plastic Electronics, Blackett Laboratory, Imperial College London, United Kingdom* [2.] *Institute of Polymer Optoelectronic Materials and Devices, Key Laboratory of Special Functional Materials, South China University of Technology, China* [3.] *Key Laboratory of Luminescence and Optical Information, Ministry of Education; Institute of Optoelectronic Technology, Beijing Jiaotong University, Beijing, China*
10:30 – 11:00		***Coffee Break-Exhibition-Networking***
Conference Room A		**Session 2** **WORKSHOP 1 – Organic Electronics - Photonics & Nanoelectronics &** **WORKSHOP 2 - NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**
I2.1	11:00 – 11:30 Invited	**Self-Assembled Diblock-Copolymer ZnO Nanosensors** A. Iliadis [1 2] [1] *Electrical and Computer Engineering Department, University of Maryland, College Park, Maryland 20742, USA* [2] *Information and Communication Systems Engineering Department, University of the Aegean, Samos, Greece*
I2.2	11:30 – 12:00 Invited	**Nanostructured metal oxides as cathode interfacial layers for improved performance hybrid organic-inorganic optoelectronic devices** Konofaos, N. *Dept. of Information & Communication Systems Engineering, University of the Aegean, Karlovassi, Greece*
W1-O2.3	12:00 – 12:15	**Non-volatile memory device using a polymer modified nanocrystal** A. Kiazadeh[1], H. L. Gomes[1], A. R. Da Costa[2], J. A. Moreira[2], D. M. De Leeuw[3], S. C.J. Meskers [4], and A. Forner[1] [1]*Center of Electronics Optoelectronics and Telecommunications (CEOT)* [2]*Centro de Investigação em Química do Algarve* *Universidade do Algarve, Campus de Gambelas, 8000-139 Faro, Portugal,* [3] *Philips Research Laboratories, Eindhoven, The Netherlands* [4] *Molecular Materials and Nanosystems, Eindhoven University of Technology, Eindhoven, The Netherlands*
W1-O2.4	12:15 – 12:30	**Diamond Like Carbon with Ni Inclusions (DLC:Ni): A new catalyst for Carbon Nanotube Growth** N.T. Panagiotopoulos[1], E.K. Diamanti[2], D. Gournis[2] and P. Patsalas[2] [1] *University of Ioannina, Department of Physics, Ioannina, Greece* [2] *University of Ioannina, Dep. of Materials Science and Engineering, Ioannina, Greece*
W1-I2.5	12:30 – 13:00 Invited	**Nanomaterials and nanotechnologies for new energy applications** B. Fillon *CEA Liten, Grenoble, France*
13:00 – 14:00		***Lunch Break***
14:00– 15:30		***Poster Session I - Exhibition – Coffee – Networking*** The Posters will be presented on Monday and Tuesday during the Lunch Break ***Chair:***

PARALLEL SESSIONS- CONFERENCE ROOM A & B

Parallel Session Conference Room B		**Session 3** **WORKSHOP 1 – Organic Electronics - Photonics & Nanoelectronics** **Chair:**	**Parallel Session Conference Room A**		**Session 4** **WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**
W1-I3.1	15:30 – 16:00 Invited	**Photonic interfaces: Laser tailoring of nanocomposites for sensor and other applications** Vainos, N. *Dep. of Materials Science, University of Patras & Photonic Media Laboratory, National Hellenic Research Foundation-NHRF/TPCI, Greece*	**W2-I4.1**	15:30 – 16:00 Invited	**Atomistic simulations of nanomaterials** P.C. Kelires *Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Limassol-Cyprus*
W1-I3.2	16:00 – 16:30 Invited	**Biosensors for Detection of Pathogenic Organisms** Owens, R. *Dep. of Bioelectronics, Centre Microélectronique de Provence, Ecole Nationale Supérieure des Mines de Saint Etienne, France*	**W2-I4.2**	16:00 – 16:30 Invited	**Intrinsic stress evolution in sputtered thin films using real time multiple-beam optical stress sensor** G. Abadias, A. Fillon, A. Michel, C. Jaouen *Institut P', Département Physique et Mécanique des Matériaux, CNRS-Université de Poitiers-ENSMA, Futurosocope-Chasseneuil, France*
W1-O3.3	16:30 – 16:45	**GaN Nanowires Grown by Gold Catalyst** B. Pécz[1], G. Z. Radnóczi[1], J. P. Ahl[2], H. Behmenburg[2], C. Giesen[2], M.Heuken[2], I. Regolin[3], W. Prost[3], F.J. Tegude[3] *[1] MTA MFA, 1121 Budapest, Hungary* *[2] AIXTRON AG, Kaiserstr. 98, Herzogenrath Germany* *[3] Solid State Electronics Department, University of Duisburg-Essen, Duisburg, Germany*	W2-O4.3	16:30 – 16:45	**The Effect of Correlations on the Field and Temperature Dependence of the Small Polaron Hopping Conductivity in 1D Disordered Systems** M. Dimakogianni, G. P. Triberis *University of Athens, Dep. of Physics, Solid State Section, Athens, Greece*
W1-O3.4	16:45 – 17:00	**Charge memory effect in semiconductive InN nanodomains** E. Sarantopoulou, Z. Kollia *National Hellenic Research Foundation, Athens, Greece.*	W2-O4.4	16:45 – 17:00	**Surface Enhanced Raman Scattering Of Gold Nanostructures : Role Of Dipolar and Multipolar Localized Surface Plasmons** N. Guillot[1], B. Frémaux[1], S. Ben Amor[1], H. Shen[2], O. Peron[3], T. Toury[2], E. Rinnert[3] and M. Lamy de la Chapelle[1] *[1] Laboratoire CSPBAT (FRE 3043), UFR SMBH, équipe LBPS, Université Paris XIII, Bobigny, France* *[2] Laboratoire de Nanotechnologie et d'instrumentation Optique, Institut Charles Delaunay, Université de technologie de Troyes, France* *[3] Service Interfaces et Capteurs, Département Recherches et Développements Technologiques IFREMER, Plouzané, France*
17:00 – 17:30	***Coffee Break – Exhibition – Poster Vision – Networking***				
Parallel Session Conference Room B		**Session 5** **WORKSHOP 1 – Organic Electronics - Photonics & Nanoelectronics** **Chair:**	**Parallel Session Conference Room A**		**Session 6** **WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**

W1-I5.1	17:30 – 18:00 Invited	**Coiled Carbon Nanotubes** Damnjanovic, M. *NanoLab, Faculty of Physics, University of Belgrade, Serbia*	**W2-I6.1**	17:30 – 18:00 Invited	**L10-FePt media as candidates for ultrahigh magnetic recording storage beyond 1 Tbit/in2** V. Alexandrakis, Th. Speliotis, E. Manios and D. Niarchos, *IMS, NCSR Demokritos, Aghia Paraskevi, Attikis, Athens 15310, Greece*
W1-I5.2	18:00 – 18:30 Invited	**Graphene and CNT-based photonics** Lidorikis, E. *Dep. of Materials Science & Engineering, University of Ioannina, Greece*	**W2-I6.2**	18:00 – 18:30 Invited	**Special graphene superlattices: new Dirac points, properties periodic in the strength of the barriers, and electron collimation** P. Vasilopoulos *Department of Physics, Concordia University, Montreal, Quebec, Canada*
W1-O5.3	18:30 – 18:45	**Electrical and Optical Properties of ZnO Thin Films Prepared by Pulsed Laser Deposition (PLD)** Songül Fiat[1], Derya Bahar[1], Naya Korelli[2], Güven Çankaya[1] and Michael Kompitsas[3] *[1] Gaziosmanpaşa University, Faculty of Arts and Science, Physics Department,Turkey* *[2] School of Mechanical Engineering, National Technical University of Athens,Greece* *[3] National Hellenic Research Foundation, Theoretical & Physical Chemistry Inst., Greece*	W2-O6.3	18:30 – 18:45	**Impact of Ti metallization and nitrogen plasma treatment on optical properties of Si-whiskers structures grown by MBE technique** S.N. Svitasheva, L. V. Sokolov,Yu. V. Nastaushev, F. N. Dultsev *Rzhanov Institute of Semiconductor Physics. Siberian Branch of Russian Academy of Sciences, Novosibirsk,, Russia*
W1-O5.4	18:45 – 19:00	**Scanning Tunnelling Spectroscopy and Topography Recovery of a Polyoxometalate-based Self-Assembled Monolayer** D. Velessiotis, S.Athanasiou, A. Douvas, P. Argitis and N. Glezos *Institute of Microelectronics, NCSR 'Demokritos', Athens, Ag.Paraskevi, Greece*	W2-O6.4	18:45 – 19:00	**Thermal and Mechanical Properties of Epoxy Polymers Reinforced with Carbon Nanotubes, Layered Silicates and Silica Nanostructures** D.J. Giliopoulos, K.S. Triantafyllidis* *Dep. of Chemistry, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece*

PLENARY SESSION – CONFERENCE ROOM A

W1-I6.5	19:00 – 19:30 Plenary Talk	**Nanocomposites for Energy Applications** E. Giannelis *Dep. of Materials Science & Engineering, Cornell University, Ithaca, NY, USA*

End of first day

Tuesday 13 July

Alexandros Palace Hotel

Conference Room A

Session 7

WORKSHOPS 2 - NanoMaterials, NanoFabrication and NanoConstruction
3 - Nanomedicine and Nanobiotechnology

Chair:

PI7.1	09:00 – 09:30 Plenary Talk	**Nanoscience, Nanotechnology, Nanomedicine** L. P. Balogh *AA Nanotech Consulting, Editor-in-Chief, NanoMedicine: Nanotechnology, Biology and Medicine*
I7.2	09:30 – 10:00	**Cell-materials interactions: Contractile force measurements of fibroblasts**

	Invited	B. Muller *Biomaterials Science Center (BMC), Universität Basel, Switzerland*
I7.3	10:00 – 10:30 Invited	**Nanomedicine and personalized medicine: The improvement of drug delivery outcomes by pharmacogenomics leading to pharmacotyping in clinical practice** I. Vizirianakis *Lab of Pharmacology, Dep. of Pharmaceutical Sciences, AUTH, Greece.*
	10:30 – 11:00	***Coffee Break – Exhibition – Networking***
Conference Room A		**Session 8: Nanomedicine in Oncology, Cardiovascular and Other disorders** **WORKSHOP 3 - Nanomedicine and Nanobiotechnology** **Chair:**
W3-I8.1	11:00 – 11:30 Invited	**In situ Breast Cancer Vaccine: Oncolytic and Immunomodulatory Therapy with a Novel Herpes Simplex-Type-1 (HSV-1) Virus Armed with the Ability to Degrade Prostaglandin E2** G. Kousoulas *Division of Biotechnology & Molecular Medicine, Louisiana State University, Baton Rouge and Stanley S. Scott Cancer Center, Louisiana State University Health Sciences Center, New Orleans, USA.*
W3-O8.2	11:30 – 11:45	**Production, Stabilization and Characterization of Selected Nano-Particles for Medical Applications** H. Schmid *Fraunhofer-Institute for Chemical Technology (ICT), Box 1240, 76318 Pfinztal, Germany*
W3-O8.3	11:45 – 12:00	**Osteointegration of Micron-Nano Hydroxyapatite coated metallic (Ti6Al4V) and bioabsorbable interference screws: In vivo Analysis** B. Aksakal[1], M. Demirel[2], M. Kom[3], H.B. Tosun[4], O. Belhan[4], M. Sezer[5] and S. Sonmez[6] *[1] Firat University, Faculty of Technology, Dept. of Mech. Eng. Elazig, Turkey ,* *[2] Adiyamant University, Vocational School of Mechanics, Adiyaman, Turkey ,* *[3] Firat University, Faculty of Veterinary, Dept. of Animal Feed. Elazig, Turkey,* *[4] Firat University, Faculty of Medicine, Dept. of Othopedics. Elazig, Turkey ,* *[5] Firat University, Faculty of Medicine, Dept. of Pathology. Elazig, Turkey,* *[6] University of Hakkari, Engineering Faculty, Dept. of Mech. Eng, Hakkari, Turkey*
W3-O8.4	12:00 – 12:15	**Nano-cardiology: Novel Carbon Nano-coatings/-tubes for Vascular Stent Applications** V. Karagkiozaki[1,3], P. Karagiannidis[1], E. Diamanti[2], D. Gournis[2], P. Patsalas[2], G. Giannoglou[3], S. Logothetidis[1] *[1]Depart. of Physics, Lab for "Thin Films -Nanosystems & Nanometrology, Aristotle University of Thessaloniki, Greece* *[2] Depart. of Materials Science and Engineering, University of Ioannina, Greece* *[3] Cardiovascular Engineering and Atherosclerosis Lab, First Cardiology Department, AHEPA University Hospital, Faculty of Medicine, AUTH, Greece*
W3-O8.5	12:15 – 12:30	**Non-porous and porous polyvinyl-butyral nanofibers** D. Lubasova[1], L. Martinova[1] *[1]Technical university of Liberec, Faculty of textile engineering, Department of nonwovens, Studentska 2, Liberec, Czech Republic*
	12:30 – 14:30	***Lunch Break*** **During this Break the presenters of Poster Session I should remove their Posters (the latest by 13:00).** **The presenters of Poster Session II should place their Posters by 13:30.**

PARALLEL SESSIONS

Parallel Session Conference Room A	**Session 9** **WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**	**Parallel Session Conference Room B**	**Session 10: Nanodiagnostics and Biosensors** **WORKSHOP 3 - Nanomedicine and Nanobiotechnology**

[redacted]			[redacted]	Chair:	
W2-I9.1	14:30 – 15:00 Invited	**Novel materials and coatings for mechanical applications** C. Rebholz *Dep.of Mechanical and Manufacturing Engineering, University of Cyprus, Nicosia, Cyprus*	**W3-I10.1**	14:30 – 15:00 Invited	**Streamlining Genomics, Synthetic Biology and Nanobiotechnology for Cancer Drug Discovery** J. Mollenhauer *Molecular Oncology & Lundbeckfonden Center of Excellence NanoCAN, University of Southern Denmark, Denmark*
W2-O9.2	15:00 – 15:15	**Analytical and Numerical Modeling of Thin Network-Reinforced Composite Shells with Applications to Carbon Nanotubes** A.V. Georgiades[1], A.L. Kalamkarov[2], S.K. Rokkam[2], K.S. Challagulla[3], V.P. Veedu[4], M.N. Ghasemi-Nehjad[4] *1.Cyprus University of Technology, Lemesos, Cyprus* *2.Dalhousie University, Halifax, Nova Scotia Canada* *3.Laurentian University, Sudbury, Ontario, Canada* *4.University of Hawaii at Manoa, Honolulu, Hawaii, USA*	W3-O10.2	15:00 – 15:15	**A highly reproducible SERS detection of biomolecules using lithographied Nanoparticles : application to biosensor** C. David[a], N. Guillot[a], H. Shen[b], T. Toury[b] and M. Lamy de la Chapelle[a] *[a] Laboratoire CSPBAT, UFR SMBH, équipe LBPS, Université Paris XIII, Bobigny, France* *[b] Laboratoire de Nanotechnologie et d'instrumentation Optique, Institut Charles Delaunay, Université de technologie de Troyes, Troyes, France*
W2-O9.3	15:15 – 15:30	**P(VDF-TrFE)/Al203 Nanocomposite Thin Films** Rachid Hadji[a], Brice Vincent[a], Didier Rouxel[a] and Fabrice Dos Santos[b] *[a] Institut Jean Lamour - Département P2M, Universite Henri Poincaré - France* *[b] Piezotech S.A., Hésingue – France*	W3-O10.3	15:15 – 15:30	**Fluorescent silica nanoparticles for enhanced bioassays** J. Labéguerie-Egéa, H. McEvoy, B.D. MacCraith, C. McDonagh *School of Physical Sciences, National Centre for Sensor Research, Dublin City University, Glasnevin, Dublin 9, Ireland*
W2-O9.4	15:30 – 15:45	**Real time Spectroscopic Ellipsometry characterization of the formation of self-organized GaSb nanopillars** I. S. Nerbø [1], M.Kildemo [1], S. Le Roy [2], E. Søndergaard [2] *[1] NTNU, Realfagbygget NTNU; 7491 Trondheim,Norway* *[2] UMR 125 Unité mixte CNRS/Saint-Gobain, Laboratoire Surface du Verre et Interfaces, France*	W3-O10.3	15:30 – 15:45	**Interaction of *Staphylococcus aureus* with cellulose acetate and collagen scaffolds** Stefanos Pentas[1], Alexandros Katranidis[1, 2], Stella Papachristou[3], Kostas Panayiotou[3], Costas Tsioptsias[3], Eleni Pavlidou[4], Antonis Asiminas[1] and Theodora Choli -Papadopoulou[1]*, *[1] School of Chemistry, Laboratory of Biochemistry, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece* *[2.] Forschungszentrum Julich,ISB-2: Molecular Biophysics, 52425, Julich, Germany* *[3.] Dep. of Chemical Engineering, Physical Chemistry Laboratory* *[4.] Dep. of Physics, Electron Scanning Laboratory, AUTh, Greece*
W2-O9.5	15:45 – 16:00	**Parameters of thin nanofibers membrane and they impact to sound absorption properties of material** J. Mohrova, *Technical University of Liberec, Studentska 2, Liberec, Czech Republic*	W3-O10.4	15:45 – 16:00	**Opportunities for Nanopatterning of Covalently Immobilised Bioactive Protein Layers** Marcela MM,. Bilek[1)], D.V. Bax[1),3)], A. Kondyurin[1)], N.J. Nosworthy[1),2)], Y. Yin[1)], D.R. McKenzie[1)], C. dos Remedios[2)], A.S. Weiss[3)] *[1)] School of Physics, University of Sydney, NSW, Australia* *[2)] School of Medical Sciences, University of Sydney, NSW, Australia,* *[3)] School of Molecular and Microbial Biosciences,University of Sydney, NSW, Australia*
W2-O9.6	16:00 – 16:15	**Lead nanostructures on reconstructed by indium Si(111) surfaces** D.Vlachos, M. Kamaratos and S.D. Foulias *Department of Physics, University of Ioannina, Ioannina, Epirus, Hellas*	W3-O10.5	16:00 – 16:15	

16:15– 16:45	***Short Break***				
Parallel Session Conference Room A		**Session 11 WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction Chair:**	**Parallel Session Conference Room B**		**Session 12: Nanotechnology for Unsolved Medical Problems WORKSHOP 3 – Nanomedicine and Nanobiotechnology Chair:**
W2-I11.1	16:45 – 17:15 Invited	**Nanotechnology for Life Sciences** H. Heinzelmann *Nanotechnology & Life Sciences, CSEM Centre Suisse d'Electronique et de Microtechnique SA,Switzerland*	**W3-I12.1**	16:45 – 17:15 Invited	**DermaVir pDNA/PEIm-based immunotherapeutic nanomedicine for HIV/AIDS** J. Lisziewicz *Genetic Immunity, Budapest, Hungary*
W2-O11.2	17:15 – 17:30	**Impact of Sintering on Microstructural and Electrical Characteristics of Inkjet-Printed Silver Nanoparticles** R. Cauchois[1,2], M. Saadaoui[2], K. Inal[2], B. Dubois-Bonvalot[1], J.-C. Fidalgo[1] [1] *Gemalto – IMT Innovation group – Avenue du Pic de Bertagne BP100 13881 Gémenos, FRANCE* [2] *École Nationale Supérieure des Mines de St-Etienne – Centre Microélectronique de Provence Georges Charpak – 880, avenue de Mimet 13120 Gardanne, France*	W3-O12.2	17:15 – 17:30	**Magnetically directed Migration of *Glioblastoma multiforme*** B. Mucha[1*], D. Pröfrock[1], L. Vekas [2], M. V. Avdeev[3], K. Lamszus[4], V. M. Garamus[1], A. V. Feoktystov[3], R. Willumeit[1] [1] *GKSS Research Centre, Max-Planck-Str.1, Geesthacht, Germany* [2] *Center for Fundamental and Advanced Technical Research, Romanian Academy-Timisoara Division, Romania* [3] *Joint Institute for Nuclear Research Dubna, Russia* [4] *University Medical Centre Hamburg Eppendorf, Germany*
W2-O11.3	17:30 – 17:45	**Direct laser nanostructuring of the material surface by the 193 nm and 248 nm wavelength irradiation** V.N. Tokarev[1], V.A. Shmakov[1], R.R. Khasaya[2], V.A. Yamshchikov[2], V.Yu. Khomich[2] [1]*A.M. Prokhorov General Physics Institute, Russian Academy of Sciences, Moscow, Russia* [2] *Institute of Electrophysics and Energetics, Russian Academy of Sciences, Sankt-Peterburg, Russia*	**W3-I12.3**	17:30 – 18:00 Invited	**Advanced cardiac imaging and interventions in children: Role of innovations and collaborations** J. Vettukatil *Southampton University Hospital, UK*
W2-O11.4	17:45 – 18:00	**Diffraction from Transition Metal Chalcogenide Nanotubes** I. Milosevic, T. Vukovic and M. Damnjanovic *NanoLab, Faculty of Physics, University of Belgrade, Belgrade, Serbia*			
CONFERENCE ROOM A					
18:15 – 18:30	**Thematic Research Network – NANONET** S. Logothetidis *Depart. of Physics, Lab for "Thin Films -Nanosystems & Nanometrology, Aristotle University of Thessaloniki, Greece*				
18:30 – 18:45	**BioNanoNet – Key Activities: Austrian Research Hub, EURO-NanoTox** Andreas Falk[1]; Eva Roblegg[2], Eleonore Froehlich[3], Andreas Zimmer[2], Frank Sinner[1,4] [1] BioNanoNet Forschungsgesellschaft mbH, Elisabethstrasse 9-11, 8010 Graz, Austria [2] Institute of Pharmaceutical Sciences/ Pharmaceutical Technology, Karl-Franzens University of Graz, Universitätsplatz 1, 8010 Graz, Austria [3] Medical University Graz, Center for Medical Research, Medical University of Graz, Austria, Stiftingtalstrasse 24, A-8010 Graz [4] Institute of Medical Technologies and Health Management, Joanneum Research, Elisabethstraße 11a, A- 8010 Graz, Austria				
18:45– 20:45	***Debate on NanoMedicine: Unsolved Medical Problems waiting for Nanosolutions***				

21:30	***Conference Dinner***

Wednesday 14 July

Alexandros Palace Hotel

Conference Room A		**Session 13** **Commercialisation of Nanotechnology** **Chair:**
I13.1	09:00 – 09:30 Invited	**The European Union research work and policy in Nanosciences -Nanotechnology** G. Katalagarianakis *European Commission*
I13.2	09:30 – 10:00 Invited	**Recent Advances in Surface Science Instrumentation** **High Precision local electrical Probing: Potential and Limitations for the Analysis of Nanocontacts and Nanointerconnects** M. Maier[1], J. Koeble[1], D. Jie[2], N. Chandarsekhar[2], Ch. Joachim[3] , B. Günther[1], A. Feltz[1] *[1]Omicron NanoTechnology GmbH, Germany* *[2] Institute of Materials Research and Engineering (IMRE), Singapore* *[3] Nanosciences group, CEMES-CNRS, France*
O13.3	10:00 – 10:15	**Commercialization of academic research in Nanotechnology** M. Chachamidou, S. Logothetidis *Lab for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, AUTh, Thessaloniki, Greece*
O13.4	10:15 – 10:30	**Nanotechnology applications in the textile industry** S. Pavlidou *CLOTEFI, Kallithea, Athens, Greece*
	10:30-10:45	***Coffee Break-Exhibition-Networking***

PARALLEL SESSIONS – CONFERENCE ROOM A & B

Parallel Session Conference Room A		**Session 14** **WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**	**Parallel Session Conference Room B**		**Session 15: Nanodrugs – Targeted Drug Delivery** **WORKSHOP 3 – Nanomedicine and Nanobiotechnology** **Chair:**
W2-I14.1	10:45 – 11:15 Invited	**Nano-materials in architecture and art conservation** [1]Miloš Drdácký, [1]Zuzana Slížková, [2]Gerald Ziegenbalg *[1]Institute of Theoretical and Applied Mechanics of the Academy of Sciences of the Czech Republic, Praha 9, Czech Republic* *[2]IBZ-Salzchemie GmbH &Co.KG, Freiberg, Germany*	**W3-I15.1**	10:45 – 11:15 Invited	**Nanotechnology Challenges in Targeted Delivery of Biopharmaceutics** C. Kiparissides *Dep. of Chemical Engineering, Aristotle University of Thessaloniki & Chemical Process Engineering Research Institute, Thessaloniki, Greece*
W2-I14.2	11:15 – 11:45 Invited	**The role of fines in ancient mortar technology** I. Papagianni-Papadopoulou *Dep. of Civil Engineering, Faculty of Engineering, Aristotle University of Thessaloniki (AUTh), Thessaloniki, Greece*	**W3-I15.2**	11:15– 11:35 Invited	**In vivo immunoxicity testing of nanodrugs-nanocarriers** R. Urbanics *In vivo Laboratory of SeroScience Ltd, Budapest, Hungary*
W2-O14.3	11:45 – 12:00	**Influences of Nanoclays on the Flammability Behaviour of Polyamide Compounds**	**W3-I15.3**	11:35– 11:55	**Dendrimer-based nanodrugs with antibacterial and antiviral activity**

		H.O. Gunduz[1], N.A. Isitman[2], C. Kaynak [1,2] *[1] Polymer Science and Technology Department, Middle East Technical University, Ankara, Turkey* *[2] Materials and Metallurgical Engineering Department, Middle East Technical University, Ankara, Turkey*		Invited Oral	P. Papaioannidou *Faculty of Medicine, Aristotle University of Thessaloniki (AUTh), Thessaloniki, Greece*
W2-O14.4	12:00 – 12:15	**The use of Si and Ca nanoparticles in lime-based pastes** M. Stefanidou [1], E. Pavlidou [2] *[1] Civil Engineering Department, AUTH, Thessaloniki, Greece* *[2] Physics Department, AUTH, Thessaloniki, Greece*	W3-O15.4	11:55 – 12:10	**In vitro Analysis and Evaluation of Hyperbranced Polylysine Nanocapsules, as a Candidate Vaccine Delivery System** D.K. Toubanaki[1,2], M. Agallou[1], E.I. Athanassiou[1], E.A. Lianos[2], and E. Karagouni[1*] *[1]Hellenic Pasteur Institute, 127 Vas. Sofias Avenue, 11521, Athens, Greece* *[2]National and Kapodistrian University of Athens, School of Medicine, Athens, Greece*
W2-O14.5	12:15 – 12:30	**Nanolayers Based on Giant Magnetoresistance Effect With Multiple Applications** F. Miculescu[1], C.Lungu[2], V.Kuncser[3], N. Miculescu[1], I. Antoniac[1], M. Miculescu[1] *[1.] University Politehnica from Bucharest, Romania* *[2.] National Institute for Lasers, Plasma and Radiation Physics, Magurele-Bucharest, Romania* *[3.] National Institute of Materials Physics, Magurele-Bucharest, Romania*	W3-I15.5	12:10– 12:40 Invited	**The Impact of Nanopharmaceuticals on the Immune system** J. Szebeni *Nanomedicine Research and Education Center, Bay Zolt'an Foundation for Applied Research and Semmelweis University, Faculty of Medicine, and SeroScience Ltd., Budapest, Hungary*
W2-O14.6	12:30 – 12:45	**Electrical Characterization of Self Assembled Monolayers on Conducting Metal Oxides** O.Yildirim , [1,2*] M.D. Nguyen,[2] D. Yilmaz,[1]M.G. Maas,[2] D.N. Reinhoudt,[1,3] D.H.A. Blank,[2] G. Rijnders[2] and J. Huskens[1] *[1] Molecular Nanofabrication Group* *[2] Inorganic Materials Science* *[3] Supramolecular Chemistry & Technology* *MESA+Institute for Nanotechnology, University of Twente, Enschede,The Netherlands*			
13:00 – 17:00	**EXCURSION: Boat Trip around Mount Athos (Holy Mountain)**				

PARALLEL SESSIONS– CONFERENCE ROOM A & B

Parallel Session Conference Room A		**Session 16** **WORKSHOP 2 – NanoMaterials, NanoFabrication and NanoConstruction** **Chair:**	**Parallel Session Conference Room B**		**Session 17** **WORKSHOP 3 -** NanoMaterials, NanoFabrication and NanoConstruction **Chair:**
W2-I16.1	17:30 – 18:00 Invited	**Laser processing of nanomaterials for applications in photonics** D.C. Koutsogeorgis *School of Science and Technology Nottingham Trent University Clifton campus. Nottingham, UK*	**W3-I17.1**	17:30 – 18:00 Invited	**Nanogold and the brain: In vivo multimodal imaging of the brain distribution** S. Krol *European Center for Nanomedicine, Fondazione I.R.C.C.S. Istituto Neurologico Carlo Besta, Italy*
W2-I16.2	18:00 – 18:30 Invited	**Nanomechanical testing of construction materials (concrete, cement, etc)** G. Constantinides *Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Lemesos, Cyprus*	**W3-I17.2**	18:00 – 18:20 Invited Oral	**Self-Assembly of Nanoparticles on Surfaces** V. Koutsos†, J. Walker†, A. B. Schofield‡ †Institute for Materials and Processes, School of Engineering, The University of Edinburgh, Edinburgh, United Kingdom ‡School of Physics, The University of Edinburgh, Edinburgh, United Kingdom
W2-O16.3	18:30 – 18:45	**Investigation of Parameters Affecting Planar Nanochannel Flows by Dissipative Particle Dynamics**	W2-O17.3	18:20 – 18:35	**Unsteady LDL Transport in Normal Human Aortic Arch**

		D. Kasiteropoulou, T.E. Karakasidis* and A. Liakopoulos *Hydromechanics and Environmental Engineering Laboratory, School of Engineering, University of Thessaly, Pedion Areos, Volos, Greece*			J.V. Soulis[1], G.D .Giannoglou[2], D. Fytanidis[1], M. Dimitrakopoulou[1], V.C. Papaioannou[1] *[1] Fluid Mechanics, Demokrition University of Thrace, Xanthi, Greece* *[2] AHEPA General Hospital, Cardiology Department, Aristotle University of Thessaloniki, Thessaloniki, Greece*
W2-O16.4	18:45 – 19:00	**Nanostructured rocksalt $Ti_xTa_{1-x}N$: A new addition to superhard materials?** L.E. Koutsokeras[1,2], G. Abadias[2], Ch.E. Lekka[1], S. Dub[3], and P. Patsalas[1] *[1]University of Ioannina, Dep.of Materials Science and Engineering, Ioannina, Greece* *[2]Dep. Physique et Mechanique des Materiaux, Institut P-prime, CNRS-Universite de Poitiers, Futuroscope-Chasseneuil, France* *[3]Institute for Superhard Materials, NAS of Ukraine, Kiev, Ukraine*	W2-O17.4	18:35 – 18:50	**Theoretical Modelling of proteolysis and cancer cell invasion of tissue** G. Lolas, C. Charitidis, *National Technical University of Athens, School of Chemical Engineering, Zographos, Athens, Greece*
19:05 – 19:30	**Closing Remarks – Discussion – Awards Ceremony** **Conference Room A**				
End of Conference					

Poster Presentations

Monday 12 July until midday on Tuesday 13 July (Location: Corridor of Conference Room A)	
	Poster Session I
	Workshop 1: Organic Electronics – Photonics & Nanoelectronics
P1-1	**Fabrication and electrical characterization of molecular nanowires based on cyclodextrin host-guest systems** Davide Maffeo[1], Viswanathan Chinuswamy[2], Zoe Pikramenou[3], Irene M. Mavridis[2,1], Konstantina Yannakopoulou[2,1*], Nikos Glezos[2] *[1] Institute of Physical Chemistry, NCSR "Demokritos", Athens, Greece* *[2] Institute of Microelectronics, NCSR "Demokritos", Athens, Greece* *[3] School of Chemistry, The University of Birmingham, UK*
P1-2	**Frequency Domain Evaluation of Nanoparticle Transport in Dielectrophoretic Microdevices** D.J.G. Bakewell and A.Chichenkov *Dep. of Electrical Engineering and Electronics, University of Liverpool, Brownlow Hill, Liverpool, UK*
P1-3	**Understanding the Influence of Vacancies Diffusion in Utilizing the Kirkendall Phenomenon for Nanotubes Formation** Y. Ren [1], W. K. Chim [1] and S. Y. Cham [2] *[1] NUS Graduate School for Integrative Sciences and Engineering, National University of Singapore, Singapore* *[2] Institute of Materials Research and Engineering, A*STAR (Agency for Science, Technology and Research), Research Link, 117602, Singapore.*
P1-4	**Influence of Substrate Surface Roughness on the Performance of Polymer Bulk Heterojunction Structures** M. Sendova-Vassileva[1],V. Bakardjieva[1], T. Ivanova[1], V. Gancheva[2], D. Tsocheva[2], P. Mokreva[2],

	L. Terlemezyan[2], P. Vitanov[1] *[1] Central Laboratory of Solar Energy and New Energy Sources, Bulgarian Academy of Sciences, Sofia, Bulgaria* *[2] Institute of Polymers, Bulgarian Academy of Sciences, Sofia, Bulgaria*
P1-5	**Phase transitions of metal free phthalocynine attached to polysiloxane chain** T. Makowski, A.Tracz, T. Ganicz, W.A. Stańczyk *Centre of Molecular and Macromolecular Studies, Polish Academy of Science, Lodz, Poland*
P1-6	**Microstructural Investigation of Ultrathin LNO Thin Films Obtained by Chemical Solution Deposition** Z.Branković[1], M. Počuča[1], G. Branković[1], S. Bernik[2], A. Rečnik[2], D. Vasiljevic-Radović[3] *[1] Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia* *[2] Dep.for Nanostructured Materials, Jožef Stefan Institute, Ljubljana, Slovenia* *[3] IHTM – Institute of Microelectronic Technologies and Single Crystals, Belgrade, Serbia*
P1-7	**Growth mechanisms, optoelectronic and nanomechanical properties of Magnetron sputtered and Electron Beam evaporated Al-doped ZnO thin films** C. Koidis[1], P. G. Karagiannidis[1], S. Kassavetis[1], K. Breza[2], N. A. Hastas[2], A. Laskarakis[1], S. Logothetidis[1], N. Vouroutzis[2], N. Frangis[2], and O. Valassiades[2] *[1] Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece* *[2] Solid State Physics Section, Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece*
P1-8	**Nanocrystalline Bismuth Manganite Obtained by Mechanochemical Synthesis** Z. Marinković Stanojević[1], Z. Branković[1], Z. Jagličić[2], M. Jagodič[2], L. Mančić[3], S. Bernik[4], A. Rečnik[4], G. Branković[1] *[1] Institute for Multidisciplinary Research, Belgrade, Serbia* *[2] Institute of Mathematics, Physics and Mechanics, Ljubljana, Slovenia* *[3] Institute of Technical Sciences SASA, Belgrade, Serbia* *[4] Jozef Stefan Institute, Ljubljana, Slovenia*
P1-9	**Electron Microscopy Study of Al-doped ZnO thin films grown by Electron Beam Evaporation** K. Breza, N. Vouroutzis, N. Frangis, C. Koidis, S. Logothetidis *Solid State Physics Section, Department of Physics, Aristotle University of Thessaloniki, GR-54124 Thessaloniki, Greece*
P1-10	**The influence of fabrication parameters on the surface morphology and structure of porous Silicon** I. Prosyčevas[(1)], D. Adlienė[(2)], S.Mockevičienė [(2)], J.Kundrotas[(3)], A.Čerskus [(3)] *[(1)] Institute of Materials Science, Kaunas University of Technology, Kaunas, Lithuania* *[(2)] Physics Department, Kaunas University of Technology, Kaunas, Lithuania* *[(3)] Semiconductor Physics Institute, Vilnius, Lithuania*
P1-11	**Controlled Fabrication of 1D or Semi-2D Molecular Nanostructures and Study of Optical Properties** Ravi Kumar Kanaparthi, Anunay Samanta *School of Chemistry, University of Hyderabad, Prof. C.R. Rao Raod, Gachi Bowli, Hyderabad, India*
P1-12	**To study the Electrical characteristics of LEDs based on a single organic layer** Jitendra Kumar Sharma, Vivek Kant Jogi and Sanjay Tiwari *S.O.S. In Electronics, Pt. Ravishankar Shukla University, Raipur (C.G.), India*
P1-13	**ZnO NWs based nanoscale devices: fabrication and applications** Vivek Pachauri, Alexis Vlandas, Klaus Kern and Kannan Balasubramanian *Nanoscale Diagnostics, Dept. of Nanoscale Science/Abtielung Kern, Max Planck Institute for Solid State Research, Stuttgart, Germany*
P1-14	**Thermal annealing effect on the nanomechanical properties and structure of P3HT:PCBM thin films** P.G. Karagiannidis, S. Kassavetis, C. Pitsalidis and S. Logothetidis *Lab for Thin Films-Nanosystems and Nanometrology, Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece*

P1-15	**Electronic Transport in Bulk Heterojunction Organic and Nanocomposite Materials for Photovoltaic and Electronic Devices** P. Servati,[1] B. Gholamkhass,[2] S. Shambayati,[1] S. Holdcroft,[2] J. Ritchie,[1] N. Mohseni Kiasari,[1] J. Mertens,[1] R. Rahman,[1] R. Rahmanian,[1] H. Yang,[3] F.K. Ko[3] *[1] Electrical and Computer Engineering Department, University of British Columbia, Vancouver BC, Canada* *[2] Department of Chemistry, Simon Fraser University, Vancouver BC, Canada* *[3] Material Engineering Department, University of British Columbia, Vancouver BC, Canada*
P1-16	**Optical, surface, electrical and nanomechanical properties of roll-to-roll printed PEDOT:PSS thin films** C. Koidis[1], D. Georgiou[1], C. Kapnopoulos[1], P. G. Karagiannidis[1], M. Chatzidis[1], S. Kassavetis[1], N. A. Hastas[2], A. Laskarakis[1], and S. Logothetidis[1] *[1] Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece* *[2] Solid State Physics Section, Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece*
P1-17	**A simplified relation for measuring optical nonlinearities with an astigmatic (elliptic) Gaussian beam** G. Tsigaridas[1,*], C. Sotiriou[2], V. Giannetas[2] and P. Persephonis[2] *[1]Department of Physics and Department of Engineering Sciences, University of Patras, GR-26504 Patras, Greece* *[2]Department of Physics, University of Patras, GR-26504 Patras, Greece*
P1-18	**Finite elements study of the deformation mechanisms induced during nanoindentation to barrier thin films** V. Gountsidou, S. Kassavetis, H. Polatoglou, S. Logothetidis *Physics Department, Aristotle University of Thessaloniki, Faculty of Sciences Bldg, GR-54124, Thessaloniki, Hellas*
	Workshop 2 – NanoMaterials, NanoFabrication and NanoConstruction
P1-19	**Nanocrystalline $SmAlO_3$: Preparation, Surface Properties and Magnetic Susceptibility** D. Petrov* [1], B. Angelov [1], V. Lovchinov [2], P. Simeonova [2] *[1] Department of Inorganic and Physical Chemistry, University of Food Technologies, Plovdiv, Bulgaria* *[2] Institute of Solid State Physics, Bulgarian Academy of Sciences, Sofia, Bulgaria*
P1-20	**Nanomechanical Properties of Friction Stir Welded AA6082-T6 Aluminum Alloy** E. P. Koumoulos[1], N. Daniolos[2], D. Pantelis[2], C. A. Charitidis[1], *[1]National Technical University of Athens, Department of Chemical Engineering, Athens, Greece* *[2]National Technical University of Athens, Department of Naval Architecture and Marine Engineering, Athens, Greece*
P1-21	**Nano-Patterning Method Using Diblock Copolymer for Scaling Phase Changing Dimension** Y. T. Kim, G. B. Kang *Korea Institute of Science and Technology, Semiconductor Material and Device Research Centre, Seoul, South Korea*
P1-22	**Fabrication of ZnO Nanorods using Metal Nanoparticles as Growth Nuclei** A.Og. Dikovska, N.N. Nedyalkov, P.A. Atanasov *Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria*
P1-23	**Branch-structured Monolayer-covered Glass Surfaces Showing Negligible Contact Angle Hysteresis** A. Hozumi[1], D. F. Cheng[1], M. Yagihashi[2] and M. Kato[2] *[1]National Institute of Advanced Industrial Science and Technologies (AIST), Shimoshidami, Moriyama, Nagoya, Japan* *[2]Nagoya Municipal Industrial Research Institute, Rokuban, Atsuta, Nagoya, Japan*
P1-24	**Influence of hydrogen partial pressure on the nanocrystalline silicon films deposited by RF magnetron sputtering at low-temperature** J.D. Sib, F. Larbi, K. Keffif, D. Benlekehal, S. Benourdja, S. Nemmour, A. Kebab, Y. Bouizem and L. Chahed *Laboratoire de Physique des Couches Minces et Matériaux pour l'Electronique, Département de Physique, Université d'Oran Es-Sénia, 3100 Oran, Algeria*
P1-25	**SERS optimization of gold nanocylinder arrays:** **Influence of the surrounding medium and application for Polycyclic Aromatic Hydrocarbons detection** N. Guillot[1],

	H. Shen[2], S. Ben amor[1], C. David[1], O. Peron[3], E. Rinnert[3], T. Toury[2] and M. Lamy de la Chapelle[1] *[1] Laboratoire CSPBAT (FRE 3043), UFR SMBH, Université Paris XIII, Bobigny, France* *[2] Laboratoire de Nanotechnologie et d'instrumentation Optique, Institut Charles Delaunay, Université de technologie de Troyes, Troyes, France* *[3] Service Interfaces et Capteurs, Département Recherches et Développements Technologiques IFREMER, Plouzané, France*
P1-26	**Characterization of Liquid Crystals Elastomer actuated by visible light** N.Torras[a] K. Zinoviev[a], J. Esteve[a], J.A. Plaza[a], H. Campanella[a] , C.J. Camargo[a], E.M. Campo, E.M. Terentjev[b] and Y. Ji[b] *[a]Instituto de Microelectrónica de Barcelona IMB-CNM (CSIC), Campus UAB, Barcelona, Spain* *[b]Cavendish Laboratory, University of Cambridge, Cambridge CB3 0HE, UK*
P1-27	**Electronic Structures of Molecular Complexes with Fullerene C60: DFT Calculation** D.V. Lopatin, E.S. Chirkin *Tambov State University, International str. 33, Russia*
P1-28	**Nanoscale pattering of phase change pillars by imprint lithography** Y. T. Kim[1], E. B. Lee[1,2],S. H. Hong[3], C. K. Kim[1], S. I. Kim[1], H. Lee[3], B. K. Ju[2] *[1]Korea Institute of Science and Technology, Semiconductor Material and Device Research Centre, Seongbuk-gu, Seoul, South Korea* *[2]Display and Nanosystem Laboratory, College of Engineering, Korea University, Anam-dong, Seongbuk-gu, Seoul, Republic of Korea,* *[3]Department of Materials Science and Engineering, Korea University, Seoul, Korea*
P1-29	**Synthesis and Characterization of Nanosized Titanium Oxide Doped with Iron** B. Babić, B. Matović *Vinca Institute for Nuclear Sciences, P. O. Box 522, 11000 Belgrade, Serbia*
P1-30	**Manufacture of Carbon Nanotubes by the technique of Plasma CVD** C. Lasorsa[1,2] , M. Pérez[1,], I. Tropper[1], A. Lamagna[1,] A. Boselli[1] *[1] Gerencia de Área Investigación y Aplicaciones no Nucleares, Comisión Nacional de Energía Atómica, Buenos Aires, Argentina* *[2]Universidad Tecnológica Nacional, Facultad Regional Haedo. Argentina*
P1-31	**Silica Fillers with variable morphology (from nanospheres to nanowires)** M.Miculescu[1], M. Ghiurea[2], M.C.Corobea[2], C. Trante[1], D.Donescu[2], C.Petcu[2] *[1]University: Politehnica from Bucharest, 313 Splaiul Independentei, 060042, Bucharest, Romania* *[2]INCDCP-ICECHIM Bucharest, 202 Splaiul Independentei, 060021, Bucharest, Romania*
P1-32	**Dependence of the Electrical Properties on the Composition of Al-based Nanolayered Contacts for GaN/AlGaN HEMTs** L. Kolaklieva, R. Kakanakov *Central Laboratory of Applied Physics, Bulgarian Academy of Sciences, Plovdiv, Bulgaria*
P1-33	**Hydrophobic Coatings based on Silica Nanoparticles - Polysiloxane for Stone Protection** L. De Ferri[1], P.P. Lottici[2], A. Lorenzi[3], A. Montenero[3] *[1]Earth Sciences Department, University of Modena-Reggio Emilia, Modena, Italy* *[2]Physics Department, University of Parma, Parma, Italy* *[3]Chemistry Department - GIAF, University of Parma, Parma, Italy*
P1-34	**Modification of Ag-PVP nanocomposites by photon irradiation** J. Puišo[(1)], D. Adlienė[(1)], A. Guobienė [(2)], I Prosyčevas[(2)] *[(1)] Physics Department, Kaunas University of Technology, Kaunas, Lithuania* *[(2)] Institute of Materials Science, Kaunas University of Technology, Kaunas, Lithuania*
P1-35	**Almost absolute magnetoresistance effect in Co-Nb-Co hybrid** I. Aristomenopoulou, D. Stamopoulos[*], E. Manios, D. Niarchos and M. Pissas *NCSR Demokritos, Institute of Materials Science, Athens, Greece*
P1-36	**Nanosecond Laser Ablation And Deposition Of Silicon Films** S.S. Yap, Cécile Ladam[2], Wee Ong Siew[3], Øystein Dahl[2], Turid Worren Reenaas[1] and Teck Yong Tou[3]

	[1]*Department of Physics, Norwegian University of Science and Technology, Trondheim, Norway* [2]*SINTEF Materials and Chemistry, Trondheim, Norway* [3]*Faculty of Engineering, Multimedia University, Cyberjaya, Selangor, Malaysia*
P1-37	**Mechanical Characteristics of Plasma-induced Nano-Roughness and Nano-Texture on PMMA and other Polymers** A. Kumar[1], D. Kontziampasis[1], A. Tserepi[1], E. Gogolides[1], A. Skarmoutsou[2], C.A. Charitidis[2] [1] *Institute of Microelectronics, National Center for Scientific Research Demokritos, Athens, Greece.* [2] *School of Chemical Engineering National Techical University of Athens, Greece*
P1-38	**Characteristics of Electrochemically deposited Nanostructured $Ni_xCo_yMo_z$ Alloy** M. Spasojević[1], A. Maričić[2], L. Ribić-Zelenović[1], J. Mladenović[1] [1] *Faculty of Agronomy Čačak, Čačak, Serbia* [2] *Technical Faculty Čačak, Čačak, Serbia*
P1-39	**Impact of Crystal Phase Content on the Mechanical Properties of Glass-Ceramic Materials** P. Kavouras[1,2], C.A. Charitidis[3], E.P. Koumoulos[3] and Th. Kehagias[1,*] [1] *Aristotle University of Thessaloniki, Department of Physics, 54124 Thessaloniki, Greece* [2] *Technological & Educational Inst. of Thessaloniki, School of Applied Sciences, Thessaloniki, Greece* [3] *National Technical University of Athens, School of Chemical Engineering, Zographos, Athens, Greece*
END OF POSTER SESSION I	
Tuesday midday 13 July until Wednesday 14 July (Location: Corridor of Conference Room A)	
	Poster Session II
	Workshop 2 – NanoMaterials, NanoFabrication and NanoConstruction
P2-1	**Fabrication of InP Nanopillars and Nanopores in NaCl Solution** Zhankun Weng[a]*, Jia Xu[a], Lanjiao Liu[a], Cuiting Wu[b], Haiyan Pan[a], Hao Song[a], Zhengxun Song[a], Zhen Hu[a], Zuobin Wang[a]* [a] *CNM & IJRCNB, Changchun University of Science and Technology, Changchun, China* [b] *Software Department, Beijing City University, Beijing, China*
P2-2	**Dispersion and Stability of Alumina Nanoparticles in Aqueous Solutions** Van Son Nguyen [a], Rachid Hadji[a], Didier Rouxel[a], Brice Vincent[a] and Yves Fort[b] [a] *Institut Jean Lamour, Universite Henri Poincaré, Vandoeuvre-les-Nancy Cedex, France* [b] *SOR-SRSMC, UMR CNRS, Université Henri Poincaré-Nancy, Faculté des sciences et techniques, Boulevard des aiguillettes, Vandoeuvre-les-Nancy Cedex, France*
P2-3	**Synthesis and characterization of (Ba, Yb) doped ceria electrolytes** B. Matovic , B. Babic, M. Rosic, J. Dukic, A. Radosavljevic-Mihajlovic, S. Boskovic *Institute of Nuclear Science Vinca, University Belgrade, P.O. Box 522, 11000 Belgrade, Serbia*
P2-4	**Influence of Carbon Nanotubes on Crystallization of Polyethylene** M. Seyhan[1], N. Baysal[1] and R. Ozisik[2] [1] *Dep. of Chemical Engineering, Yeditepe University, Istanbul, Turkey* [2] *Dep. of Materials Science and Engineering, Rensselaer Polytechnic Institute, Troy, USA*
P2-5	**Oxide nanostructures: improvement to IT-SOFCs and gas sensors** A.G. Leyva (1), J.Sacanell (1), D.Lamas (2), D.Rodriguez (1) *(1) Comisión Nacional de Energía Atómica, CAC, Buenos Aires, Argentina* *(2) Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), Buenos Aires, Argentina*
P2-6	**Fabrication and Properties of anodic oxidation film on aluminium alloy 6061-T6** Tsung-Chieh Cheng*, Chen-Chang Yang

	Dep. of Mechanical Engineering, National Kaohsiung University of Applied Sciences, Kaoshiung City, Taiwan
P2-7	**Surface hardening and glassification of thin polydimethylsiloxane films with VUV laser light** E. Sarantopoulou, Z. Kollia, A. C. Cefalas *National Hellenic Research Foundation, Athens, Greece*
P2-8	**Artificial Membrane Constructed by one-dimensional Nanostructure using DNA Origami** Ian C. Robertson[2], Ken Uchida[2,3] and Shunri Oda[1,2,3] [1] *Quantum Nanoelectronics Research Center, Tokyo Institute Of Technology, Tokyo, Japan* [2] *Physical Electronics, Tokyo Institute Of Technology, Tokyo, Japan* [3] *JST SORST, Tokyo, Japan, Ookayama Meguro-ku Tokyo, Japan*
P2-9	**Temperature Influence on the Optical and Structural properties of NiO Thin Films obtained by Metallic Ni Oxidation Process** E. Budianu, M. Purica, F. Comanescu, M. Danila *National Institute for R&D in Microtechnologies, Bucharest, Romania*
P2-10	**Luminescence response of rare-earth oxide nanomaterials** D.Mohanta, M. Devi, and N. Paul *Nanoscience Laboratory, Tezpur University, PO Napaam, Assam, India*
P2-11	**Influence of Deposition Parameters on Self-assembled Ag-Co Core-shell Nanoparticles** A.D. Crisan[1], M. Angelakeris[2], K. Simeonidis[2], O. Crisan[1] [1] *National Institute for Materials Physics, Bucharest, Romania* [2] *Department of Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece*
P2-12	**Growth of AlN-based Nanocomposites Grown by Pulsed Laser Deposition and Sputtering and the effect of post-growth thermal annealing** H. Zoubos[1], A. Siozios[1], G. Vourlias[2], G. Stergioudis[2], and P. Patsalas[1,2] [1] *University of Ioannina, Department of Materials Science and Engineering, Ioannina, Greece* [2] *Aristotle University of Thessaloniki, Department of Physics, Thessaloniki, Greece*
P2-13	**A Novel Catalyst for the Electrochemical Reduction of Benzaldehyde** Č. Lačnjevac[1], L. Ribić-Zelenović[2], D. Đukić[2], M. Spasojević[2] [1] *Faculty of Agriculture, Nemanjina 6, Belgrade, Serbia* [2] *Faculty of Agronomy Čačak, Cara Dušana 34, Čačak, Serbia*
P2-14	**Encapsulation of nanoparticles by coaxial electrospinning** K.Vodsedˇálková *Studentská 2, Liberec 461 17, Czech Republic*
P2-15	**Synthesis of AlN-TiN nanocomposite by mechanochemical processing** H.AminiMashhadi [1], P.Manikandan [2], S.Tanaka [2], K.Hokamoto[2] [1] *Graduate School of Science and Technology, Kumamoto University, Kurokami, Kumamoto, Japan* [2] *Shock wave and Condensed Matter Research Center, Kumamoto University, Japan*
P2-16	**"Explosive" Percolation as a Tool of Examining Discontinuous Phenomena in Nanotechnology** P. Giazitzidis[1] , N. Mpastas[1] , K. Kosmidis[1] and P. Argyrakis[1] [1] *Department of Physics, University of Thessaloniki, 54006, Thessaloniki, Greece*
P2-17	**Electron Microscopy Study of Anodic Porous Alumina Fabricated on Si (100) Substrates by Electrochemistry** E. Stavrinidou[1], K. Breza[1], N. Frangis[1], V. Gianneta[2] and A. G. Nassiopoulou[2] [1] Solid State Physics Section, Department of Physics, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece [2] IMEL/NCSR Demokritos, Terma Patriarchou Grigoriou, Aghia Paraskevi, 153 10 Athens, Greece
P2-18	**Brush Painted Ba Hexaferrite Films Doped with La** G. Litsardakis and P. Nikolaki *Dept. of Electrical & Computer Engineering and Graduate Programme in Processes and Technology of Advanced Materials, Thessaloniki, Greece*
P2-19	**Hybrid TEOS/colloidal silica/TiO_2/PDMS composites for stone consolidation**

	L. Kalogerakis, A. Verganelaki, C. Kapridaki, A. Gotsis, P. Maravelaki *Department of Sciences, Laboratory of Analytical and Environmental Chemistry, Polytechnioupolis, Chania, Crete, Greece*
P2-20	**Titania-silica sol-gel bactericide coatings on marble** C. Kapridaki, P. Maravelaki *Department of Sciences, Laboratory of Analytical and Environmental Chemistry, Polytechnioupolis,Chania, Crete, Greece*
P2-21	**Optical Spectroscopy Investigation of Sol-gel Deposited Al-doped ZnO Films** R. Plugaru[a)], M. Purica[a)], F. Comanescu[a)], S. Mihaiu[b)], A. Toader[b)] *[a)] National Institute for Research and Development in Microtechnologies-IMT Bucharest, P.O. Box 38-160, 023573 Bucharest, Romania* *[b)] Institute of Physical Chemistry "I.G. Murgulescu" Romanian Academy, Spl. Independentei 202, 060021 Bucharest, Romania*
P2-22	**Morphology and devices properties of Picene films grown by Supersonic Molecular Beams** L. Quazuguel[a], C. Fasoli[a], S. Iannotta[b], M. Tonezzer[a] and T. Toccoli[a] *[a]IFN-CNR, Via alla Cascata 56/C, Povo di Trento Italy* *[b]IMEM-CNR, Parco Area delle Scienze, Parma, Italy*
P2-23	**Microelectrode surface patterning by nanosphere lithography** A.Tsigara, A. Benkhial, E. Dempsey *Microsensors for Clinical Research and Analysis, Centre for Research in Electroanalytical Technology Department of Science, Institute of Technology Tallaght Dublin, Dublin 24 Ireland*
P2-24	**ZnO nanowires on C microfiber architecture as flexible gas sensor** M. Tonezzer[1,2,3,4,5,*], R.G.Lacerda[2] *[1]Dipartimento di Fisica, Università di Trento, Via Sommarive 14, I-38100 Povo Trento, Italy* *[2]Laboratorio de Nanomateriais, Departamento de Fisica, Universidade Federal de Minas Gerais, Av. Antonio Carlos 6627, 30123-970 Belo Horizonte MG (Brazil)* *[3]Fondazione Bruno Kessler, Via Sommarive 18, I-38050 Povo Trento, Italy* *[4]IFN-CNR Trento Division, Institute of Photonics and Nanotechnology Via alla Cascata 56/C, 38123 Trento, Italy* *[5]TASC National Laboratory IOM-CNR, S. S. 14 km 163, 5, I-34012 Basovizza, Italy*
P2-25	**Optical, surface, electrical and nanomechanical properties of roll-to-roll printed PEDOT:PSS thin films** C. Koidis[1], C. Kapnopoulos[1], P. G. Karagiannidis[1], M. Chatzidis[1], S. Kassavetis[1], N. A. Hastas[2], A. Laskarakis[1], and S. Logothetidis[1] *[1] Laboratory for Thin Films-Nanosystems and Nanometrology (LTFN), Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece* *[2] Solid State Physics Section, Physics Department, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece*
P2-26	**TEM studies in $K_2Bi_8Se_{13}$ nano-composites prepared by Ball Milling** M. Ioannou(1), E. Hatzikraniotis(2), K. Chrissafis(2), Ch. B. Lioutas(2), D.Y. Chung(3), K.M. Paraskevopoulos(2) and Th. Kyratsi(1) *(1) Department of Mechanical and Manufacturing Engineering, University of Cyprus, 1678 Nicosia, Cyprus* *(2) Department of Physics, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece* *(3) Materials Science Division, Argonne National Laboratory, Argonne IL 60439, USA*
P2-27	**Nanomechanical characterization of cement based pastes enriched with Si nanoparticles** I. Zyganitidis[1], M. Stefanidou[2], S. Logothetidis[1] *[1].Laboratory for Thin Films Nanosystems and Nanometrology, Physics Department, Aristotle University of Thessaloniki, Greece* *[2]. Laboratory of Building Materials, Department of Civil Engineering, Aristotle University of Thessaloniki, Greece*
	Workshop 3 – NanoMedicine and NanoBiotechnology
P2-28	**Studies of Molecular Dynamics in Poly (Propylene Oxide) Amines Intercalated in Clay** A. Panagopoulou[*], K. Vartzelis-Nikakis, S. Kripotou[*], A. Kyritsis[*], P. I. Xidas[**] and K. S. Triantafyllidis[**]

	[*] *Dep. of Physics, National Technical University of Athens, Zografou Campus, Athens, Greece* [**] *Dep. of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece*
P2-29	**Nanowire Field Effect Transistor Type Biosensor for Prostate-Specific Antigen Detection** Y. T. Kim[1], G. B. Kang[1,2], S. M .Kwon[1,2] [1] *Korea Institute of Science and Technology, Semiconductor Material and Device Research Centre, Seongbuk-gu, Seoul, South Korea* [2] *Korea University, School of Electrical Engineering, 411 Engineering Building, Anam-dong Seongbuk-Gu, Seoul, South Korea*
P2-30	**A Raman study of MMP2 and MnSOD, two pathology biomarkers** C. David[a], C. D'Andrea[b], B. Fazio[b], O. M. Maragò[b], P. G. Gucciardi[b], and M. Lamy de la Chapelle[a] [a] *Laboratory CSPBAT, UFR SMBH, University Paris 13, 74 rue Marcel Cachin, Bobigny, France* [b] *CNR Istituto per i Processi Chimico-Fisici, sez. Messina, MESSINA, Italy*
P2-31	**Nanosized Sol-Gel Titania Drug Reservoirs for Epilepsy Treatment: Physical Properties and Phenytoin Release** T. Lopez[1,2], K. Espinoza[2], A. Kozina[2], A. Galano[2], R. Alexander-Katz[3] and D. Bersani[4], I.-G. Marino[4], P.P. Lottici[4] [1] *Universidad Autónoma Metropolitana-Xochimilco, Dto. Atención a la Salud, Coyoacán, México* [2] *Lab de Nanotecnologia para Medicina, Instituto Nacional de Neurología y Neurocirugía 'MVS', México* [3] *Departamento de Física, UAM-Iztapalapa, México* [4] *Physics Department, University of Parma, Parma, Italy*
P2-32	**Bacterial Biosynthesis of Hydroxyapatite on Zirconium Alloys** L. Pramatarova[a], R. Sammons[b], R. Dimitrova[c], A. Wang[b], E. Pecheva[a], T. Hikov[a], D. Fingarova[a], A. Wright[d], W. Palin[b], J. Wilson[b], L. Macaskie[e], P. Yong[e,f], T. Spassov[g] [a] *Georgi Nadjakov Institute of Solid State Physics, Bulgarian Academy of Sciences,Sofia, Bulgaria* [b] *School of Dentistry, University of Birmingham, Birmingham, UK* [c] *Institute of Organic Chemistry with Phytochemistry, Bulgarian Academy of Science,Sofia, Bulgaria* [d] *School of Chemistry, University of Birmingham, Birmingham, UK* [e] *School of Biosciences, University of Birmingham, Birmingham, UK* [f] *School of Metallurgy and Materials, University of Birmingham, Birmingham, UK* [g] *Faculty of Chemistry, University of Sofia, Sofia, Bulgaria*
P2-33	**Coating and functionalization of magnetic nanoparticles for biomedical applications** I.Antoniac, D.Laptoiu[2], R.Marinescu[2], M.Miculescu[1], A.Antoniac[1], C.Petcu[3] [1]*University: Politehnica from Bucharest, Bucharest, Romania* [2] *Colentina Clinical Hospital, Orthopaedic Department, Bucharest, Romania* [3] *INCDCP-ICECHIM Bucharest, Bucharest, Romania*
P2-34	**Nanosensors Based on Biosilicated Quantum Dot – Enzyme Conjugates** R. Buiculescu, M. Hatzimarinaki, N.A. Chaniotakis *Laboratory of Analytical Chemistry, Department of Chemistry, University of Crete, Greece*
P2-35	**Biocomposites for biodegradable implants – synthesis and characterisation** A.Robu, D.Laptoiu[2], R.Marinescu[2], F.Miculescu[1], I.Antoniac[1], D.Trante[1], I.Stancu[1] [1]*University: Politehnica from Bucharest, 313 Splaiul Independentei, 060042, Bucharest, Romania* [2]*Colentina Clinical Hospital, Orthopaedic Department, Bucharest, Romania*
P2-36	**Synthesis, Characterization and Antitumoral Activity of the Platinum(II) Complex with *O,O′*-Dibutyl-Ethylenediamine-*N,N′*-Dl-(*S,S*)-2(4-Methyl)-Pentanoate Ligand** Jelena M. Vujić[a], Marija Milovanović[b], Vladislav Volarevic[b], Nebojša Arsenijević[b], Srećko R. Trifunović[c] [a] *Faculty of Agronomy, University of Kragujevac, Čačak, Serbia* [b] *Center for Molecular Medicine, Faculty of Medicine, University of Kragujevac, Kragujevac, Serbia* [c] *Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac, Serbia*
P2-37	**Microstructural characterization and animal testing of some experimental nanocomposites for dentistry** A.Antoniac, M.Moldovan[2], C.Sarosi[2], D.Robu[1], I.Antoniac[1], R.Istrate[3]

	[1]*University Politehnica from Bucharest, Bucharest, Romania* [2]*UBB-ICCRR Cluj Napoca, Romania* [3] *MED4MED Bucharest, Romania*
P2-38	***Hypericum perforatum* L Extracts as Potential Natural Antifungal Preservatives** Pavle Mascovic[1], Milica Cvijovic[1], Slavica Solujic[2] and Violeta Ninkovic[3] [1] *Faculty of Agronomy, University of Kragujevac, Čačak* [2]*Department of Chemistry, Faculty of Science, University of Kragujevac, Kragujevac* [3] *Public Health Institute, Kragujevac, Serbia*
P2-39	**Electrochemical microfluidic sensor for biosensing applications** A.Tsigara[1,2], A. Benkhial[1,2], O. Worsfold[3], F. Akkari[1], E. Dempsey[1,2] [1] *MiCRA-Microsensors for Clinical Research and Analysis, Department of Science, Institute of Technology Tallaght Dublin, Dublin, Ireland* [2] *CREATE-Centre for Research in Electroanalytical Technology, Department of Science, Institute of Technology Tallaght Dublin, Dublin, Ireland* [3] *Business Development Directorate, Stephenson Building, Newcastle University, Newcastle Upon Tyne, U.K.*
P2-40	**Comparison study of urea- and heat- induced denaturation of a1, a2 and a3 domains of von Willebrand factor using molecular dynamics techniques implemented on the HellasGrid Infrastructure** Stefanos Pentas[1], Lampros Mountrakis[2], Paschalis Korosoglou[2], Georgios Papadopoulos[3] *1. Department of Physics of condensed matter, Laboratory of Thin Films Nanosystems and Nanometrology, Aristotle University of Thessaloniki* *2. Grid and HPC Operations Center, Aristotle University of Thessaloniki* *3. Department of Biochemistry & Biotechnology, University of Thessaly, Greece*
P2-41	**Synthesis and Characterisation of Conductive DNA-templated Polymer Nanowires** Mahdi M. Almaky*, Benjamin R. Horrocks* and Andrew Houlton* **Chemical nano-science laboratory, School of Chemistry, Newcastle University. NE1 7RU. UK*
P2-42	**Studies Concerning the Utilizations of Cantilever Beams in Bio Applications** Loredana Draghiciu, Mihaela Carp, Raluca Müller, Adrian Dinescu, Alina Cismaru, Mihai Danila, Victor Damian* *National Institute for R&D in Microtechnologies (IMT- Bucharest, Romania)* **INCDFLPR, Bucharest, Romania*
P2-43	**The lymphatic vascular system in lymphangiogenesis, invasion and metastasis. A theoretical approach** G. Lolas, C. Charitidis, *National Technical University of Athens, School of Chemical Engineering, Athens, Greece*
P2-44	**Nanolocalization of Features in the Patterns Produced by Four-beam Laser Interference Lithography** Zhen Hu*, Guowei Xiu, Jia Xu, Zhengxun Song, Zhankun Weng, Zuobin Wang* *CNM & IJRCNB, Changchun University of Science and Technology, Changchun, China*
P2-45	**Synthesis of iron oxides nanoparticles for biomedical applications** M. Filippousi[a], A. Kotoulas[a] G. Vourlias[a], N.Vouroutzis[a], M. Angelakeris[a], O. Kalogirou[a], D. Zamboulis[b], E. Pavlidou[a] [a] *Department of Physics, Aristotle University, Thessaloniki, Greece* [b] *Department of Chemistry, Aristotle University, Thessaloniki, Greece*
P2-46	**Synergistic Antitumoral Effect of Chemotherapeutic Agents and HSV-Tk/GCV Gene Therapy Mediated by Albumin-Associated Nanosystems** H. Faneca, S. Amaral and M.C. Pedroso de Lima *Center for Neuroscience & Cell Biology & Dep. of Life Sciences, University of Coimbra, Portugal*
P2-47	**Structural and magnetic studies of silica-coated magnetic nanoparticles: potential candidates for magnetic hyperthermia treatment** Chatzipavlidis A [1, 2], Bilalis P2, Boukos N2, Mitrikas G2, Kordas G2 and Charitidis CA1 *1. National Technical University of Athens, School of Chemical Engineering, Greece*

	2. Institute of Material Science, NSCR 'Demokritos', Athens, Greece
P2-48	**Patterned nanofibrous layers** J. Chvojka, D. Lukas, P. Mikes *Technical university of Liberec, Faculty of textile engineering, Department of nonwovens, Studentska 2, Liberec, Czech Republic*
P2-49	**Biological Evaluation of Nanocoatings: Analysis of their Cytotoxicity and Cell Proliferation** P. Kavatzikidou[1], S. Kassavetis[1], S. Logothetidis[1], P. Patsalas[2], E. Pavlidou[3], Th. Choli-Papadopoulou[3] *[1] Aristotle University of Thessaloniki, Department of Physics, Laboratory for Thin Films – Nanosystems and Nanometrology, Thessaloniki, Greece* *[2] University of Ioannina, Department of Materials Science and Engineering, Ioannina, Greece* *[3] Aristotle University of Thessaloniki, Department of Physics, Thessaloniki, Greece* *[4] Aristotle University of Thessaloniki, Department of Chemistry, Biochemistry Lab, Thessaloniki, Greece*
P2-50	**Electrical sensing of sugars based on electrochemically functionalized single wall carbon nanotubes** T. Kurkina[1], A. Vlandas[1], A. Ahmad[1], K. Kern[1,2] and K. Balasubramanian[1] *[1] Max-Planck-Institute for Solid State Research, Heisenbergstrasse 1, Stuttgart, Germany.* *[2] Institut de Physique de la Matière Condensée, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland*
P2-51	**Structural and Magnetic Hyperthermia Features of Iron Oxide Nanoparticles** A. Kotoulas[a], E. Gkanas[a], K. Simeonidis[a], M. Angelakeris[a], C. Dendrinou-Samara[b] and O. Kalogirou[a] [a] Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece [b] Department of Chemistry, Aristotle University, GR-54124 Thessaloniki, Greece
P2-52	**Hyperthermia Response of Iron Oxide Nanoparticles taken up by Cancer Cells** E. Gkanas[a], M. Koureta[c], A. Kotoulas[a] M. Angelakeris[a], K. Chlichlia[c] A. Dendrinou-Samara[b] , Th. Samaras[a] and O. Kalogirou[a] *[a] Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece* *[b] Department of Chemistry, Aristotle University, GR-54124 Thessaloniki, Greece* *[c] Department of Molecular Biology and Genetics, Democritus University of Thrace, GR-68100 Alexandroupolis, Greece*
P2-53	**Synthesis and characterization of $NiFe_2O_4$ core shell nanoparticles** Th. Kalampaliki[b], M. Darda[a] K. Simeonidis[b], M. Angelakeris[b], C. Dendrinou-Samara[a] *[a] Department of Chemistry, Aristotle University, GR-54124 Thessaloniki, Greece* *[b] Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece*
P2-54	**Carbon Nanotubes with Wall-Encapsulated Magnetic Particles as Potential Drug Carriers for Directed Delivery** George N. Karanikolos[1], Eleni Vermisoglou[1], George Pilatos[1], Eamon Devlin[2], Nick K. Kanellopoulos[1] *Institutes of [1]Physical Chemistry and [2]Materials Science, Demokritos National Research Center, Athens 15310, Greece*
P2-55	**The unveiling of Nanoscale Imaging for Human Blood Cells probing** V. Karagkiozaki[1], S.Logothetidis[1], E.Verrou[2] , K.Zervas[2] *[1] Department of Physics, Lab for "Thin Films -Nanosystems & Nanometrology", Aristotle University of Thessaloniki, GR-54124, Greece.* *[2] Hematology Department Theagenion Cancer Center, Thessaloniki, Greece*
P2-56	**Computational biomechanics of vascular stent on small size scales** I. Zyganitidis[1], V. Karagkiozaki[1], G. Savvaidis[2], S. Logothetidis[1] *[1].Laboratory for Thin Films Nanosystems and Nanometrology, Physics Department, Aristotle University of Thessaloniki, Greece* *[2].Laboratory of Machine Elements and Machine Design, Mechanical Engineering Department, Aristotle University of Thessaloniki, Greece*
P2-57	**Academic Entepreneurship: The Case of Nanomedicine** A. Papadopoulou, M. Chachamidou, S. Logothetidis *Aristotle University of Thessaloniki, Department of Physics, Laboratory for Thin Films – Nanosystems and Nanometrology, GR-54124, Thessaloniki, Greece*
END OF POSTER SESSION II	