Conference Program

Organized by the University of Ioannina

Conference Center "Karolos Papoulias", University campus, Ioannina

Sponsored by

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Under the auspices of

University of Ioannina

Materials Science & Engineering

Department of Physics

Research Committee

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ΔΡ Κ.Ι. ΒΑΜΒΑΚΑΣ - ΕΠΙΣΤΗΜΟΝΙΚΟΣ ΕΞΟΠΛΙΣΜΟΣ


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ANALYTICAL ENVIRONMENTAL LIFE INDUSTRIAL SCIENCES
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Preface

It is my distinct honor, and pleasure, to welcome you all to the "XXXII Panhellenic Conference on Solid State Physics & Materials Science" and to our beautiful city of Ioannina. This year the conference is held from 18 to 21 of September 2016 and is organized by the University of Ioannina at the Conference Center "Karolos Papoulias" within the University Campus. This is the National Conference of the Solid State Physics and Materials Science research communities. It is organized annually in a rotational basis within Greece and Cyprus, having started in 1982 at Thessaloniki. Typically more than 150 scientists from Greece and Europe, in fields of Physics, Engineering, Materials, Chemistry, and Biology, participate each year making this a thriving conference for over 3 decades! This great tradition has been an excellent forum for interactions between students, senior researchers and industry representatives. Many students have given here their first presentation, have discussed and exchanged ideas with experienced researchers and academics, while at the same time new research collaborations have been conceived and forged. It's been my privilege to be part of this for many years and a great honor to host this year's Conference in Ioannina.

About 180 researchers are attending and/or presenting their results this year. An exciting list of distinguished researchers from Greece and Europe have been invited to give lectures on the current experimental and theoretical issues in solid state physics & materials science: Andrea C. Ferrari (Cambridge), Wayne D. Kaplan (Technion-Israel Institute of Technology), Gregory Abadias (Univ. of Poitiers), Manfred Albrecht (Univ. of Augsburg), Kyriakos Porfyrakis (Oxford), Vassilios Kapaklis (Univ. of Uppsala), Maria Chatzinikolaidou (Univ. of Crete), George Dimitrakopulos (Aristotle Univ), Ioannis Kallitsis (Univ. of Patras), Emmanuel Kymakis (TEI Crete), Argiris Laskarakis (Aristotle Univ.), Theodoros Leontiou (Frederic Univ.,Cyprus), Athanasios Godelitsas (Univ. of Athens) και Ioannis Raptis (NCSR Demokritos). In addition, three special sessions have been organized: i) an industry forum, where representatives from instrument manufacturers present the newest scientific tools (Monday afternoon), ii) a presentation from representatives of the Greek General Secretariat for Research and Technology of the new calls on materials and round-table discussion (Wednesday afternoon), iii) the general assembly meeting of the "Hellenic Society for the Science and Technology of Condensed Matter (Wednesday afternoon).

I hope this conference, as it has happened year after year, will again live up to its main target, which is to become an inspiration for young scientists to continue and pursue their goals with passion and enthusiasm.

With gratitude,
Elefterios Lidorikis

Introduction

The 32nd Panhellenic Conference on Solid State Physics & Materials Science, held on 18-21 September 2016 in Ioannina, is a scientific meeting covering the modern trends and applications of Solid State Physics and Materials Science & Technology. This conference is held annually on a rotational basis. Recent past conferences were held in Thessaloniki 2015, Heraklion 2014, Athens 2013, Patras 2012, Limassol 2011 and Ioannina 2010. Researchers and scientists from Universities, Research Institutions, State Organizations and Industry get together to present and discuss the current state of the art in the area of physics, chemistry, materials science and materials engineering. At the same time, it provides a good opportunity for the young researchers (graduate and post graduate students) to present their first scientific results, investigate the possibility of scientific collaborations and explore employment opportunities. An exhibition of instruments and accessories also take part inside the conference centre.

Topics

The topics that will be discussed include: (1) electronics, photonics and optoelectronics, (2) structural-dynamical and mechanical properties of condensed matter, (3) strongly correlated systems, magnetism & superconductivity (4) surfaces, nanomaterials and low-dimensional materials & systems (5) polymers, organic materials and biomaterials, (6) ceramics, composites, minerals and metals.

The city of Ioannina

Ioannina is the capital and the largest city of Epirus. Founded by the Byzantine Emperor Justinian in the 6th century AD, Ioannina flourished following the Fourth Crusade, when many wealthy Byzantine families fled there in the early 13th century following the sack of Constantinople. It was part of the Despotate of Epirus from 1358 to 1416, before surrendering to the Ottomans in 1430. Between 1430 and 1868 the city was the administrative center of the Pashalik of Yanina. In the period between the 18th and 19th centuries, the city was a major center of the modern Greek Enlightenment. Ioannina joined Greece in 1913 following the Balkan Wars.

Venue

The conference is held at the Conference Center "Karolos Papoulias", located in the heart of the University of Ioannina Campus. You can get there, as following:

- From the Ioannina airport: By bus to the city center (runs every 30 min), then take bus 16 or 17 to the University (runs every 10 min)
- From the city centre: Take the bus 16 or 17 to the University (runs every 10 min) from the bus stop across the Justice Hall.
- By taxi: +30 26510 64777 (average cost: from airport 10-12 €, from the city centre 6-7 €)

Presentations

Scientific program will include plenary, keynote, invited and contributed lectures as well as poster presentations which will provide an up-to-date state of the modern trends in Materials Science. Keynote and invited speakers should plan for a 35 and 25 minute talk respectively, followed by 5 minutes of questions. Oral presentations should be in done within 12 minutes in order to keep 3 minutes for discussion. Presentations should be in Microsoft Powerpoint or Adobe Acrobat Reader format and should be electronically handed by the speaker to the conference room at least one session before the lecture. Contributed papers describing original research work will be also presented as posters in order to promote scientific discussions and collaborations. The authors should hang their posters the morning of the presentation's day. The posters are recommended to be 80 cm (width) × 100 cm (height) while type size should be sufficiently large to allow people to read from 2-3 meters. All presentations should be in English.

Best presentation award

To encourage young students' participation a number of awards have been defined for high quality work based on their posters or oral presentations. These awards will be given to recognize excellence in research and presentation. The winners will be announced during the Closing ceremony on 21st September at 14:00.

Exhibition

Suppliers of analytical instrumentation and laboratory equipment will exhibit their latest offering during the Conference. The exhibition area is adjacent to the lecture area and within the poster, coffee break and lunch areas in the Conference Center "Karolos Papoulias".

International Technology Corporation was established 1977 by Mr Simaion Argyropoulos, who was active in the service of scientific instruments since 1973 for research and development film. Since 1977 I.T.C. provides in the territory of Greece and Cyprus later scientific equipment, supplies, software and also design, installation, training and service in vacuum systems, surfaces analysis systems, vacuum measuring systems, leak detection systems, Mask aligners, Probers, Spin coaters and Hot plates. We also supply vacuum evaporation coaters, RTP-CVD systems, sputtering systems, mass spectrometers, wafers, spin on dopands, sputtering targets, pure metals and polymers, analytical and toploading balances. Over 35 years we represent in Greece and Cyprus companies like Varian (now Agilent Technologies) SUSS Microtech, AnnealSYS, Mantis Deposition Systems, V.G., Kemstream, Tristan technologies, Silvaco and more. Our customers are usually Universities, Research Institutes, public utilities, armed forces, industry, Hospitals etc. Recently the management of the company was transfer to Mr Leonidas Pennos who continues the good tradition of the company.

ThetaMetris designs & manufactures a wide range of turn-key instruments and holistic solutions for the non-destructive characterization of films and coatings (thickness, uniformity, refractive index, colour etc.) in the thickness range of 5nm – 500μm. ThetaMetrisis instruments are applied for both static and dynamic measurements in a wide spectrum of treatment conditions e.g. thermal processing, in liquids or gas environments etc. and for diverse applications, such as: Semiconductors, PV Industry, MEMS-MOEMS, Polymers, Optical Coatings, Hard Coatings Membranes, Liquid Crystal Display. ThetaMetrisis tools can be tailored to meet any particular customer's needs, are affordable in price, without any compromise in accuracy, quality & after sales support.

Analytical Instruments SA has been the exclusive representative in Greece for several decades of many renown scientific equipment manufacturers, such as Bruker, Agilent, Leica-Microsystems, Horiba, Hitachi. This testifies its confidence and respect within the scientific community, as well as its commitment and dedication to its customers. It is accredited by TÜV

Germany according to ISO EN 9001:2008, EN 13485:2012, for quality assurance. Its calibration laboratory is in accordance with EN ISO 17025:2005 Its staff includes highly educated chemists, chemical engineers, physicists and electronic engineers, who are regularly trained and are thus continuously updated on the latest scientific and technological developments.

Klothakis Eleftherios & Co. E.E – Anelis E.E.: Our company supplies high quality scientific systems by well known manufacturers, in the field of research and industrial laboratories. Our skilled personnel and the long experienced collaborators, provide full scientific and technical support. We are supplying scientific systems in the fields of material science, research laboratories, for industrial and manufacturing applications, pharmaceutical testing, food and sample preparation techniques. Analyzers for process industry and environmental applications monitoring. Technical and Scientific support, spare parts and chemical consumables. Contact ANELIS (www.anelis.gr) for further information. **SPECS Surface Nano Analysis GmbH** - A Story of Constant Innovation: SPECS has more than 150 employees at its headquarters in Berlin and its subsidiaries in the USA and Switzerland. The company also has sales offices and international sales channels in more than sixteen countries. A team of scientists and engineers are involved in developing and producing scientific instruments for surface analysis, material science and nanotechnology. By constant innovation new techniques, components or system concepts are launched every year since more than 30 years, revolutionizing the field of surface analysis. Contact SPECS Surface Nano Analysis GmbH (www.specs.com) for further information.

Vector Technologies LTD was established 11 years ago as a value added distributor of Test and Measurement Instruments and Operational Support systems in the Telecommunications, Educational and Public Sector market specializing in sales, marketing, technical support and after-sales service of hi-tech products. It specializes also in the provision of troubleshooting, performance analysis and network consulting services of new technology networks. Our mission is to provide our customers with the right choice for their particular application combining the superior quality on a fair cost. Our strategic co-operations with leading international suppliers, together with the strong know-how of our people, provide a guarantee of the quality and the success of our solutions and services in every electronic application. It is our company's policy to continuously seek for new ways to improve our processes and our modes of operation in order to maintain our competitive edge and achieve our targets. Vector Technologies is offering a complete range of test & measurement products and systems and maintains partnership agreements with leading measurement systems manufacturers as follows: TEKTRONIX, KEITHLEY, AEROFLEX, AMETEK, Anite-NEMO, ACTIX, TTi, AARONIA, SPECTRACOM, AR, CAEN, AH Systems, etc. The company is located at Vrilissia area north of Athens - Greece The premises include warehouses, integration center, demo center, training facilities and offices.

LaborScience S.A. was established in 2003, with primary mission to provide customers with total reliable solutions on scientific / laboratory instruments and applications, to Universities, Institutes, Health and Biotechnology Institutions as well as to the Industrial Sector. In order to offer complete range of high quality products which fulfill the customer needs, currently represents in Greece carefully selected manufacturers in various fields, such as: NT MDT with Modular and Automated AFM / STM systems, Integration of AFM with cutting-edge optical methods for scientific research AFM - Raman - SNOM - TERS, NanoIndentation as well as AFM Probes. Carl Zeiss, Jenoptik, Linkam, Prior, Photonic, Dhs, Pyser and more with Research Optical Microscopes, Stereomicroscopes, Digital Cameras, Heating, Cooling, Motorized Stages, Micromanipulators, Graticules, Image Analysis Software, Cold Light, Metal Halide, LED Illumination Sources. Relion Industries, with cathodoluminescence instrumentation. Hesse Instruments with Heating Microscope and furnace with Automatic Image Analysis. Hirox with 3D Digital Video Microscopy from the Highest Optical Quality to the most Advanced 3D Measurement Systems. CRAIC Technologies with UV-visible-NIR microscopes and microspectrophotometers, Raman microspectrometers. Brookhaven Instruments Corp. with Particle size, Zeta Potential, and Molecular Weight Analyzers, Chromatography Detectors and Laser Light Scattering Instruments. RMC-Boeckeler, with Ultramicrotomes. Quorum Technologies, Agar Scientific and more with Carbon, Sputter Coaters and EM consumables. Fischione Instruments with Ion Beam Specimen preparation devices, Plasma Cleaner, specimen holders, and EM imaging detectors. General Laboratory Equipment, including Hermle range of centrifuges, Elma ultrasound baths, Consort pHmeters and conductometers, as well as ovens furnaces, distillation units, pumps, refractometers, tensiometers, polarimeters, balances, mills, sieves and sieve shakers and more.

Detailed program

Sunday 18 September 2016

16:00 Registration

Opening ceremony

18:50 E. Lidorikis (Conference Chair)
18:55 T. Bakas (Vice Rector of the University of Ioannina)
19:00 **Andrea C. Ferrari** (Cambridge University, plenary)
The Roadmap to Applications of Graphene, Layered Materials and Hybrid Systems
20:00 **Welcome Reception**

Monday 19 September 2016

Session 1: Surfaces, Interfaces and Nanomaterials I

chair: S. Agathopoulos (U. Ioannina)

9:00 **Wayne D. Kaplan** (Technion-Israel, keynote)
Adsorption Transitions and Microstructural Evolution

9:40 Thomas Kehagias (AUTh)
Strain and composition variations in the (211)B GaAs/InAs quantum dot heterostructure

9:55 Maria Katsikini (AUTh)
GaN nanocrystal formation in a SiO2 matrix

10:10 **Theodoros Leontiou** (Frederic-Cyprus, invited)
Stress and Composition of SiGe Nanostructures on Curved Substrates

10:40 Theodore Pavloudis (AUTh)
Hydrogen diffusion through the Pd/Mg interface of Pd nanoparticles deposited on Mg nanofilms

10:55 ***Coffee break***

Session 2: Ceramics, composites, minerals and metals

chair: W. Kaplan (Technion-Israel)

11:30 **Athanasios Godelitsas** (U. Athens, invited)
Mineral Nanoparticles, Nanominerals and Natural Nanoporous Oxide Materials

12:00 George Litsardakis (AUTh)
Low temperature synthesis of ferrites for LTCC applications

12:15 Petros Nikolaou (Cyprus U. Techn.)
Hydrogenated amorphous carbon with embedded plasmonic NPs of silver/gold: nanocomposite films for selective and broadband optical absorption

12:30 Maria Karampiperi (AUTh)
Radiophotoluminescence for medical dosimetry

12:45 Simeon Agathopoulos (U. Ioannina)
The influence of wetting phenomena, thermodynamics and kinetics in the production of ceramic/metal composites

13:00 Lunch break

Session 3: 2D Materials

chair: A. Laskarakis (AUTh)

14:30 **Emmanuel Kymakis** (TEI-Crete, invited)
Graphene and other 2D-based materials for organic and hybrid solar cells

15:00 George Kioseoglou (U. Crete)
Spin relaxation and intervalley scattering in 2D semiconductors

15:15 Georgios Kopidakis (U. Crete)
Electronic properties engineering of transition metal dichalcogenides: strained monolayers and nanoribbons

15:30 John Parthenios (ICEHT-FORTH)
*Near field Raman scattering in Molybdenum disulfid*e

15:45 Maria Kandyla (NHRF)
Properties of graphene supported on gold-coated black silicon

16:00 George Kalosakas (U. Patras)
Controlled formation of carbon nanostructures through defect engineering in graphene

16:15 ***Coffee break***

Session 4: Photonics and Optoelectronics

chair: P. Patsalas (AUTh)

16:45 **Ioannins Raptis** (NCSR-Demokritos, invited)
Monolithically integrated optoelectronic platform for Point-of-Need application in health & food safety

17:15 Georgios Kakarantzas (NHRF)
Silica nanowires with a highly nonlinear glass thin coating for flat extra-wide supercontinuum generation

17:30 Konstantinos Vyrsokinos (AUTh)
Investigation of Silicon Photonics pn junctions for fast Electro-Optical Switching

17:45 D. Chatzitheocharis (AUTh)
Investigation of Silicon NanophotonicSingle-Mode Polarization Insensitive Waveguides

18:00 Thomas Christopoulos (AUTh)
Graphene-Based Nonlinear Resonators for Optical Bistability:
A Coupled Mode Theory Approach

Special Session I: Sponsor Presentations

chair: K. Prouskas (U. Ioannina)

18:20 Vector Technologies LTD

18:28 Anelis E.E.- SPECS Surface Nano Analysis GmbH

18:36 LaborScience S.A.

Poster Session I: Topics 2, 4, 6
(18:45 – 20:30)

chair: Ch. Lekka (U. Ioannina), D. Anagnostopoulos (U. Ioannina)

Tuesday 20 September 2016

Session 5: Low dimensional materials and systems

chair: J. Kallitsis (U. Patras)

9:00 **Kyriakos Porfyrakis** (Oxford-UK, keynote)
Fullerenes: Production, Properties and Applications

9:40 **Argiris Laskarakis (**AUTh, invited)
In-line high precision optical metrology for mass production of Organic Electronics

10:10 Ioanna Zergioti (NTUA)
Laser fabrication of a hybrid platform combining electrical and optical interconnects

10:25 Dimitris Tsikritzis (U. Patras)
Energy level alignment regimes at P3HT and modified ITO interfaces: The influence of the substrate work function

10:40 Periklis Papadopoulos (U. Ioannina)
Wetting states on superoleophobic surfaces

10:55 Theodoros E. Karakasidis (U. Thessaly)
Molecular Dynamics to extract friction factor at the nanoscale

11:10 Coffee break

Session 6: Structural and mechanical properties

chair: P. Kelires (Cyprus U. Techn.)

11:40 **Gregory Abadias** (U. Poitiers-France, invited)
Uncovering thin film growth dynamics from in situ and real-time diagnostics

12:10 **George Dimitrakopulos** (AUTh, invited)
Plastic strain relaxation in heteroepitaxy: A critical comparison of mechanisms and processes in III-Nitride epilayers

12:40 Panagiotis Pappas (NTUA)
GIXRD Study of multiferroic EuTiO3 with in-situ application of electric field

12:55 Marios Constantinou (Cyprus U. Techn.)
Nanomechanical characteristics of pulsed-laser deposited DLC films with metallic (Ag, Mo) nanoinclusions

13:10 Christina Kyrou (U. Athens)
Polarized micro-Raman Study of the impact of Nanoparticle Shape and Concentration on the Nematic Liquid Crystalline Orientational Order

13:25 Lunch break

Session 7: Polymers and organic materials

chair: K. Porfyrakis (Oxford-UK)

15:00 **Joannis K. Kallitsis** (U. Patras, invited)
Polymeric Semiconductors and their Carbon Nanostructure Hybrids for Organic Photovoltaics

15:30 Athanasios Katsouras (U. Ioannina)
Chemical structure optimization in high performance electron donor conjugated polymers based on indacenodithiophene and indacenodithienothiophene for organic photovoltaic applications

15:45 Georgios Constantinides (Cyprus U. Techn.)
Buckling-Induced Pattering of PDMS Surfaces Through Argon Ion Bombardment

16:00 Alexandros Vanakaras (U. Patras)
Surface-induced alignment of liquid crystalline dendrimers

16:15 Efthymia Ramou (U. Patras)
Liquid Crystalline Behaviour of Dimeric Systems Exhibiting Two Nematic Phases

16:30 Apostolos Koutsioukis (U. Patras)
A simple route to increase electrical conductivity of Graphene/CNTs thin films by compression.

16:45 Coffee break

Session 8: Surfaces, Interfaces and Nanomaterials II

chair: G. Dimitrakopulos (AUTh)

17:15 Kalliopi Trohidou (NCSR-Demokritos)
Numerical Study of the effect of the Antiferromagnetic matrix on the Exchange Bias properties of diluted nanoparticle system

17:30 Dimitris Kehrakos (ASPETE)
Modeling domain wall velocity in bi-magnetic nanowires

17:45 Andreas Kaidatzis (NCSR-Demokritos)
Structural and magnetic properties of L10 FePt/{MgO, W, or Pt }/L10 FePt trilayers

18:00 Georgios Giannopoulos (NCSR-Demokritos)
Combinatorial sputtering method: Producing L10-FeNi films with coercivity in excess of 1 kOe

18:15 Loukas Kastanis (NTUA)
Electrical and structural characterization of memory devices with laser fabricated nanocrystals

18:30 Fotis Priftis (U. Patras)
On the role of entropy in the emergence of chirality in systems of achiral particles.

18:45 Alexandra Stamateri (AUTh)
A DFT study on the interface of prototype organic semiconductors and the silver surface

Poster Session II: Topics 1, 3, 5
(19:00 – 20:30)

chair: Ch. Lekka (U. Ioannina), D. Anagnostopoulos (U. Ioannina)

Conference Dinner at "Frontzu Politia" (21:00)

Wednesday 21 September 2016

Session 9: Strongly correlated systems and magnetism

chair: I. Panagiotopoulos (U. Ioannina)

9:30 **Manfred Albrecht** (U. Augsburg, Germany, keynote)
Future concepts and materials for magnetic data storage

10:10 **Vassilios Kapaklis** (U. Uppsala, Sweden, invited)
Thermal fluctuations in artificial spin ice

10:40 Margaritis Gjoka (NCSR-Demokritos)
Structure and magnet properties of R1-xZrxFe10Si2 alloys with R = Nd, Sm

10:55 Myrovali Eirini (AUTh)
Arranging at the nanoscale: Effect on magnetic particle hyperthermia

11:10 Antonios Makridis (AUTh)
Dancing with magnetism: An attempt to control cell fate

11:25 Coffee break

Session 10: Biomaterials

chair: G. Kalosakas (U. Patras)

12:00 **Maria Chatzinikolaidou** (U. Crete, invited)
Engineering biomaterials for tissue engineering with controlled immunomodulation

12:30 Marianna Vasilakaki (NCSR-Demokritos)
Monte Carlo Study of core/shell nanoparticles for enhanced hyperthermia performance

12:45 Maria Tassi (U. Athens)
Extra Carrier Transfer Oscillations in DNA Monomers, Dimers and Trimers

13:00 Stavros X. Drakopoulos (U. Patras)
Variation of Energy Density in Thermoplastic Starch-Cellulose Microcomposites with Humidity and Temperature. A new sensing capability?

13:15 Coffee break and light snack

Student Presentation Awards
(14:00 – 14:30)

chair: E. Lidorikis (U. Ioannina)

Special Session II: Presentation of the new calls on materials and round-table with GSRT
(14:30 – 15:00)

chair: D. Niarchos (NCSR-Demokritos)

Special Session III: Meeting of the "Hellenic Society for the Science and Technology of Condensed Matter"
(15:00 – 15:30)

chair: I. Zergioti (NTUA)

Closing Ceremony

chair: E. Lidorikis (U. Ioannina)

Monday 19 September 2016

Poster Session I: Topics 2, 4, 6
(18:45 – 20:30)

chair: Ch. Lekka (U. Ioannina), D. Anagnostopoulos (U. Ioannina)

Topic 2: Structural-dynamical and mechanical properties of condensed matter

P201	Theocharis Angeletos (U. Athens)	*Infrared Study of Defects in Nitrogen-Doped Electron Irradiated Silicon*
P202	K. Filintoglou (AUTh)	*High pressure Raman and photoluminescence studies of InxAl1-xN (x= 0.72)*
P203	S. Misopoulos (AUTh)	*Pressure response of the FC70 FluorinertTM studied by Raman spectroscopy*
P204	F. Sebros (AUTh)	*High pressure Raman study of Kevlar-29 aramide fibres*
P205	Calliope Bazioti (AUTh)	*Structural properties and strain relaxation in high alloy content InGaN films grown on AlN/Al2O3 templates by MBE*
P206	Marios Constantinou (Cyprus U. Techn.)	*PECVD/PVD hybrid deposition technology for developing Ag- and Ti-reinforced hydrogenated amorphous carbon nanocomposite coatings*
P207	Aikaterini Boutzi (AUTh)	*On the High Pressure Consolidation of Bi2Te3*

Topic 4: Surfaces, nanomaterials and low-dimensional materials & systems

P401	Anastasios Kotoulas (AUTh)	*Solvothermal synthesis of carbon encapsulated cobalt nanoparticles and their response in magnetic hyperthermia.*
P402	Mattheos Kamaratos (U. Ioannina)	*Yttrium and oxygen adsorption on silicon Si(100)2x1 surface*
P403	Athanasios B. Bourlinos (U. Ioannina)	*Fluidized Carbon Nanotubes through Novel Modification Pathways*
P404	M. K. Niora (AUTh)	*Variation in the anomalous fading behavior of various luminescence signals from Durango apatite versus grain sizes; from micro to nano scale*
P405	Vassiliki Belessi (TEI-Athens)	*Gravure printing of highly conductive ink made by Graphene/MWNTs nanohybrids in polyacrylic resins*
P406	Athina Alevizaki (U. Le Havre, France)	*Hypersonic phononic crystals made of poroelastic spheres*
P407	Adam Stimoniaris (TEI W. Macedonia)	*Thermodynamic characterization and behavior of epoxy / fly ash composites*
P408	Adam Stimoniaris (TEI W. Macedonia)	*Structure – Properties Relationship of Thermoset and Thermoplastic Nanocomposites Filled with Fly Ash*
P409	Alexandra Ioannidou (NCSR-Demokritos)	*A novel one step synthesis and sintering of skutterudite CoSb3*
P410	E.C Stefanaki (AUTh)	*The effect of synthesis technique on the microstructure of high performance PbSe thermoelectric materials*

P411	Georgios Skoulatakis (U. Patras)	*Chemical and electrical characterization of high-k ultra-thin films on Ge substrates.*
P412	Nikoletta Florini (AUTh)	*Finite Element Analysis of Quantum Nanostructures*
P413	Stavros Kozakos (AUTh)	*Study of structural characteristics of polycrystalline Si thin films, grown by Al metal induced crystallization of amorphous-Si, for solar cell applications by electron microscopy techniques*
P414	Martha A. Botzakaki (U. Patras)	*Al2O3/HfO2/p-Si MOS structures: Electrical and structural characterization*
P415	Karanasios Anastasios-Nikolaos (AUTh)	*C-doped TiO2 powder characterization via XRD-analysis and Photo-Electrochemical experiments*
P416	A. Konstantopoulou (U. Patras)	*Phononic band gaps in nanostructures*
P417	Marianna Vasilakaki (NCSR-Demokritos)	*Magnetic properties of FePt films in CD and Si patterned substrates*
P418	Philomela Komninou (AUTh)	*Strain distribution in ultra-thin In(Ga)N/GaN quantum wells*
P419	Carla Cutrano (U. Ioannina)	*Structural, magnetic and electronic properties of CuFe nanoclusters by density functional theory calculations*
P420	Nikolaos Pliatsikas (AUTh)	*Enhanced Photocatalytic Activity of Composite Semiconducting/Plasmonic Materials: Towards Withholding of Heavy Metal Ions from Aqueous Solutions*
P421	John Nikolaides (AUTh)	*A material scientist's guide to fractal analysis*
P422	Dimitris Bellas (U. Ioannina)	*Modification of Nanoparticle Arrays by Laser-Induced Self Assembly (MONA-LISA)*
P423	Charalambos Trapalis (U. Ioannina)	*Molecular Modelling of the OPV Active Material in the Vicinity of Ag Nanoparticles*

Topic 6: Ceramics, composites, minerals and metals

P601	Tomara Georgia (U. Patras)	*Dielectric characterisation of PA6/ Boehmite alumina nanocomposites. The effect of compounding method.*
P602	Antonios Theodorakakos (AUTh)	*Electrical Properties and Thermal Imaging of Commercial NiTi wires*
P603	Angeliki G. Lekatou (U. Ioannina)	*Surface degradation of aluminium matrix composites reinforced by WC nanoparticles and aluminide particles*
P604	Angeliki G. Lekatou (U. Ioannina)	*Corrosion and wear behaviour of HVOF WC-Co-Cr nanostructured and conventional coatings*
P605	Ioanna Maria Zougrou (AUTh)	*XAFS study of hydroxyapatite and fossil bone apatite*
P607	Theodoros Karakostas (AUTh)	*Vitrification and devitrifiation treatment for the stabilization of chromium containing tannery ash*
P608	Aristotelis Kazakopoulos (TEI-Thessaloniki)	*Ionic Conductivity comparative study of LiZnVO4 and LiMgVO4*
P609	Andreas Delimitis (CPERI-CERTH)	*Structural Analysis of Waste Material from Mafic Rock Quarries Used for CO2 Sequestration*

Tuesday 20 September 2016

Poster Session II: Topics 1, 3, 5
(19:00 – 20:30)

chair: Ch. Lekka (U. Ioannina), D. Anagnostopoulos (U. Ioannina)

Topic 1: Electronics, photonics and optoelectronics

P101	Joseph Kioseoglou (AUTh)	*Ab-initio structure prediction and electronic properties of $[Si_xSn_{1-x}]_3N_4$ ternary nitrides*
P102	Dodoleri Loukia (AUTh)	*Comparison between beta and ultraviolet (UV) induced Thermoluminescence in Lithium Fluoride (LiF)*
P103	Tilema Georgakopoulos (U. Patras)	*Photoconductive properties of nanocrystalline TiO2 powders prepared inacidic environment*
P104	Kesidou Panagiota (AUTh)	*Deconvolution on CaF:Nglowcurves induced by ultraviolet (UV)*
P105	P. Konstantinidis (AUTh)	*Dose rate dependence of Anomalous Fading (AF) in natural apatites.*
P106	Vasilis Lionas (U. Patras)	*Electrical conductivity mechanisms of nanocrystalline TiO2 powders prepared in acidic environment*
P107	Karagiannis Ioannis (AUTh)	*EIS studies in incandescent lamps' tungsten wires*
P108	C. Petridis (TEI-Crete)	*Solution-processed reduced graphene-based electrodes for organic photovoltaics*
P109	Spyros Doukas (U. Ioannina)	*Spectrometer free molecular sensing with graphene plasmons*
P110	Ioannis Vangelidis (U. Ioannina)	*Optimal designs of plasmonic organic photovoltaics*

Topic 3: Strongly correlated systems, magnetism & superconductivity

P301	Konstantinos Efthimiadis (AUTh)	*Finite Elements Micromagnetic Simulation of the domain wall resonance*
P302	Nikolaos Maniotis (AUTh)	*Numerical simulations of interactions between magnetic nanoparticles and living matter through magnetothermal and magnetomechanical experimental setups*
P303	Zoi Kalpaxidou (AUTh)	*Magnetic nanoparticle heating in an AC magnetic field; an ex vivo approach*
P304	Panagiotopoulos Ioannis (U. Ioannina)	*Study of Magnetization Reversal in Layered Heterostructures by Vector-Magnetometry*
P305	George Sempros (AUTh)	*Synthesis, processing and characterization of FeMnGa nanoparticles for permanent magnet applications*
P306	Charalampos Sarafidis (AUTh)	*Processing of MnBi particles by high energy surfactant assisted ball milling*
P307	Kostas Georgalas (U. Athens)	*Magnetic ordering and low field CMR in La(Mn, Cr)O3+δ (δ≈0.09, 0.12) compounds*
P308	Theodorou Andreas (U. Athens)	*Electrical properties of VO2 layers on Y-ZrO2 substrates*
P309	K. Trohidou (NCSR-Demokritos)	*Numerical Study of the Exchange Bias properties of MnFe2O4/γ-Fe2O3 core/disordered shell nanoparticles*

P310	Sophia Karamanou (TEI-Crete)	*A novel approach for Plastic Bonded Magnets of the type MQU-F melt spun NdFeGaB –type alloys*
P311	Tzartzas Thanos (U. Ioannina)	*"Motion of Magnetic Bubbles by Electric Currents in Perpendicular Anisotropy Films*
P312	Ioannis Hanis (AUTh)	*"Critical temperature investigation in high temperature superconductors by means of magnetic susceptibility measurements*

Topic 5: Polymers, organic materials and biomaterials

P501	Sotirios Sakkopoulos (U. Patras)	*Conductivity Degradation Study of Polypyrrole and Polypyrrole/5% w/w TiO2 nanocomposite under Heat Treatment in He and Atmospheric Air*
P502	Ioanna Zergioti (NTUA)	*Laser Induced Forward Transfer technique for the immobilization of biomaterials*
P503	Achilleas Pipertzis (U. Ioannina)	*Ionic Conductivity in Discotic Liquid Crystals of hexa-peri-benzocoronenes (HBC) doped with lithium triflate (LiTf)*
P504	Georgia K. Pouroutzidou (AUTh)	*Synthesis of a glass-ceramic nano-material in the ternary system SiO-CaO-MgO-CuO: effect of ball milling on the particle size, morphology and bioactive behavior*
P505	Aristoula Selevou (U. Ioannina)	*Effect of Confinement on the Structure and Dynamics of two Rod-like Liquid Crystals*
P506	Stelios Alexandris (U. Ioannina)	*Glass Transitions of Amorphous Polymers Confined in Nanopores: Dependence on Interfacial Energy and Thickness*
P507	Maria Katsikini (AUTh)	*Spectroscopic study of the role of Br and Sr in colored parts of the Callinectes sapidus crab claw*
P508	Thomas Nevolianis (U. Ioannina)	*Liquid Crystals of Hexasubstituted Benzenes bearing ultra strong dipole moments*
P509	George Kalosakas (U. Patras)	*Modeling and quantifying drug release kinetics*
P510	Christina Zacharaki (U. Athens)	*Electronic structure of purines, pyrimidines and similar molecules with LCAO*
P511	Evaggelia Efthymiou Zavvou (U. Patras)	*Mesomorphic Behaviour and dielectric response of symmetric difluoroterphenyl methylene-linked dimers*
P512	Eleni V. Christidi (U. Patras)	*Modelling of drug particles behavior near the release boundary: a classical and fractional dynamics approach*
P513	Violetta Georgiadou (AUTh)	*CoFe2O4 Nanoassemblies as Dual agents: Carriers of Anti-inflammatory Drug and Imaging Probes*