

NN20 Preliminary Programme (Greece Local Time Zone)

Monday 6th July

WS3-COVID

Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
11:30-12:00	KEYNOTE Prof. Thomas Webster, Northwestern University, USA Nanomedicine and COVID-19: Commercializing Improved Prevention, Diagnostic, and Therapeutic Approaches
12:00-12:30	L. Sideras, Nanotechnology Lab LTFN, Greece Nanotechnology-based approaches against SARS-CoV-2: Diagnosis and management of COVID-19
12:30-12:45	K. Tsougeni, Nanoplasmas P.C., Technology Park of NCSR Demokritos A lab-on-a-chip for rapid, colorimetric detection of SARS-CoV-2 Virus RNA in 30 min post extraction
12:45-13:00	Heba Nabil Abdelaziz, Arab Academy for science, Technology & Maritime Transport, Egypt Nano-architecture role in Avoiding viruses impacts in human-built environment

WS3-COVID

Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
14:00-14:15	INVITED (L)
14:15-14:30	Dr Ilise L Feitshans JD and ScM and DIR , & Dr Bettina Mues MD MPH Snapshot from the trenches of law and pharmacy: Saving the world from Covid-19 by Applying Nanotechnology
14:30-14:45	C. Gravalidis, Nanotechnology Lab LTFN, Greece
14:45-15:00	Predictions on COVID-19 evolution: Status Worldwide
15:00-15:15	Y. Tang , Western University, Canada (V) A Mathematical Model of COVID-19 Transmission
15:15-15:30	Joana C. Antunes, University of Minho, Portugal (V) Essential oil-loaded chitosan/polyvinyl alcohol blended films and its role as adjuvant to eradicate Staphylococcus aureus and Pseudomonas aeruginosa from infected microenvironments
15:30-15:45	Richard L Roe, Georgetown University Law Center (V) Using Nanoenabled Communication to Improve Awareness of Science and Health Education about COVID-19 in Early Childhood Education
15:45-16:00	Palencia-Aguilar. Carla, GC2M Corp, USA (V) Nanotechnology Role in the Food Industry to fight against Covid-19

WS2-Computational

Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
16:30-16:45	KEYNOTE (V)
16:45-17:00	M. Damnjanovic, University of Belgrade, Serbia Topological phases of layers: elementary band representations
17:00-17:15	INVITED (V)
17:15-17:30	V. Damljanović, University of Belgrade, Serbia Electronic Dispersions in Two- and Three-Dimensional Single Crystals From Symmetry Point of View
17:30-17:45	INVITED (V)
17:45-18:00	I. Miloević, University of Belgrade, Serbia

	Electronic-band topology of group VI layered transition metal dichalcogenides
18:00-18:15	INVITED (V)
18:15-18:30	M. Zacharias, Cyprus University of Technology, Cyprus Temperature dependence of the optical properties of silicon nanocrystals
18:30-18:45	E. Antoniou Aristotle University of Thessaloniki, Greece (V) Ab Initio Computational Investigation of Structure & Magnetic Properties of SmCo ₅ -XNiX Intermetallic Compounds
18:45-19:00	Ronald Columbié-Leyva, Instituto de Investigación en Materiales, UNAM, México. (V) Theoretical studies of high-T _c Fe-superconductors based on BaFe ₂ As ₂ in presence of dopants Rh and Pd.
19:00-19:15	C. Simserides, National and Kapodistrian University of Athens, Greece (V) Hole transfer in cumulenic and polyynic carbynes
19:15-19:30	M. Witkowski, University of Warsaw, Poland (V) DFT modeling of SERS spectra of dipeptides: A comprehensive study of vibrational structure for Cys-Trp and Trp-Cys adsorbed on Au and Ag

Tuesday 7th July

WS1

Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
11:00-11:30	WELCOME Prof. S. Logothetidis, NN20 Chairman
11:30-12:00	KEYNOTE (V) R. Silva, University of Surrey, UK Powering the next generation of Wearables and IoT with Plastic Electronics
12:00-12:30	INVITED (V) J. Briscoe, Queen Mary University of London, UK Scalable fabrication and treatment of hybrid perovskite solar cells by aerosol-assisted chemical vapour deposition
12:30-12:45	Ieng-Wai. Un, Ben-Gurion University of the Negev, Israel (V) Thermal effect in plasmon assisted photocatalyst: a parametric study
12:45-13:00	Ieng-Wai. Un, Ben-Gurion University of the Negev, Israel (V) Thermo-Optical Nonlinearity of Metallic Nanoparticle(s)

WS1

Timber Hall 2 & Virtual Room NN (Group A) Chair: S. Kassavetis. Gravalidis, Nanotechnology Lab LTFN	
14:00-14:15	INVITED (V)
14:15-14:30	O. L. Muskens, University of Southampton, Highfield, Southampton, UK Tunable and smart metal oxide infrared metasurfaces for radiative cooling of satellites and multiband flat optics
14:30-14:45	E. Papis-Polakowska , Łukasiewicz Research Network-Institute of Electron Technology, Poland (V) Passivation of InAs/GaSb type-II superlattice photodetectors using long-chain thiol self-assembled monolayers
14:45-15:00	V. A. Klinkov^{1*}, A. V. Semencha¹, O. V. Tolochko¹, V. A. Markov¹, E.S. Vasilyeva¹, N. D. Stoyanov² ¹ High School of Physics and Materials Technology, Peter the Great St.Petersburg Polytechnic University, , Russia ² Microsensor Technology, Kurchatova St. 10, St. Petersburg, Russia Development of thermoplastic glass for the formation of microlenses on the semiconductor surface
15:00-15:15	INVITED (V)
15:15-15:30	Aris Christou, University of Maryland, USA Material and Nanostructure Challenges for Wide Bandgap Switches with THICK Homo and Hetero -GaN Epitaxy
15:30-15:45	KEYNOTE (V)
15:45-16:00	Prof. Theodore Moustakas, Boston University, USA Development of UV LEDs for environmental and medical applications

WS2-Thin-Films

Timber Hall 2 & Virtual Room NN (Group A)	
16:30-16:45	KEYNOTE (V) Fabrizio Pinto, Izmir University of Economics, Republic of Turkey
16:45-17:00	Dispersion force engineering and next-generation spacecraft: Case studies in a nanoscale emerging enabling general-purpose technology
17:00-17:15	K.Emmert, Fraunhofer ISC, Germany (V) Biodegradable functional coatings for sustainable packaging solutions: bioORMOCER®
17:15-17:30	A. C. Papageorgiou Technical University of Munich, Germany (L)

	Emerging Complexity in Two-Dimensional Molecular Architectonics with Linear Bis-Hydroxamic Acid Modules on Surfaces
17:30-17:45	Sunghwan Lee Purdue University, United States (V) Thermodynamic-based synthetic strategies of p-type oxides for thin film transistor applications
17:45-18:00	P. Knotek University of Pardubice, CZ (V) Photo-induced Solid State Reaction at the Interface of the Multilayer GeSe – AsS System
18:00-18:15	S.Yu. Turishchev, Voronezh State University, Russia (V) On the possibility of microspot advanced studies of the E.coli bacteria surface
18:15-18:30	Alexe C.A. INCDTP- Division Leather and Footwear Research Institute, Romania (V) Multifunctional Leather Surfaces Covered With Nanocomposites Through Conventional And Unconventional Methods

PLENARY

Timber Hall 2 & Virtual Room FORUM (Group A)	
19:00-19:30	Introduction by Prof. S. Logothetidis, ISFOE20 & NN20 Chairman
19:30-20:15	Controlling hybrid inorganic/organic electronic materials interfaces N. Koch ^{1,2,3} ¹ Institut für Physik & IRIS Adlershof, Humboldt-Universität zu Berlin, Germany ² Helmholtz-Zentrum Berlin für Materialien und Energie, Germany ³ Institute of Functional Nano & Soft Materials, Soochow University, China
20:15-21:00	Matter-to-Life: How to Build a Cell J.P. Spatz Max Planck Institute for Medical Research, Heidelberg, Germany

Wednesday 8th July

WS3 & I3D

	Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	Timber Hall 1 Virtual Room I3D (Group A) Chair: S. Kassavetis, Nanotechnology Lab LTFN
11:00-11:30	INVITED Prof. Yannis Missirlis, University of Patras, Greece Information and communication pathways in cells	INVITED Evangelos Delivopoulos University of Reading, RG66AY, UK An alginate fibre scaffold as a spinal cord organoid
11:30-11:45	INVITED (V) Dr. Gerard Tobias, Institut de Ciència de Materials de Barcelona, Spain Biomedical imaging and therapy with carbon nanotubes	INVITED Prof. Ioanna Zergioti, National Technical University of Athens, Greece Laser Induced Forward Transfer as a tool for precise bioprinting
11:45-12:00		
12:00-12:15	A. Mavromanoli, Aristotle University of Thessaloniki, Greece The use of electrospraying for the production of polylactic-co-glycolic acid-based propolis nanoparticles	Carlos Carvalho, EnvisionTEC GMBH, Germany 3D Bioplotter Over 15 Years of Bioprinting
12:15-12:30	M. Bartolewska, University of Warsaw, Poland (V) Preparation of gold nanoparticles with sulfuraphane as a reducing agent.	A. Shannon University of Limerick Radiopaque 3D printing for medical application
12:30-12:45	N. C. Homem, University of Minho, Portugal(V) Functionalization of CA/PCL wet-spun microfibers with essential oils for biomedical applications	INVITED Prof. Aylin Sendemir, Ege University, Turkey Utilisation of Microfluidics in 3D Bioprinting
12:45-13:00		
	K. Polak, University of Warsaw, Poland (V) Potential Active Pharmaceutical Ingredients - metacetamol and its new crystalline forms	

WS2-Nanoparticles & Nanoengineering I3D

	Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	Timber Hall 1 & Virtual Room I3D (Group A) Chair: S. Kassavetis, Nanotechnology Lab LTFN
14:00-14:15	INVITED (V) M. R. Koblischka Saarland University, Germany The possible applications of superconducting nanowire network fabrics	INVITED A. Tasolamprou Foundation for Research & Technology-Hellas (FORTH), Greece Fabrication and characterization of Fused Deposition Modeling 3D printed mm-scaled metasurface units for microwave applications
14:15-14:30		
14:30-14:45	EU PROJECT (L) P. M. Angelopoulos National Technical University of Athens (NTUA), Greece Study of the influence of the addition of closed-structure expanded perlite microspheres on the density and compressive strength of cement pastes	A. Orfanos, BL Nanobiomed P.C., Greece, Novel fabrication of 3D printed non disposal face masks
14:45-15:00	EU PROJECT (V) F. Antolini ENEA Photonics Micro and Nanostructures Laboratory, Italy	M. Maturi, University of Bologna, Italy Phosphorescent Bio-Based Resin for Digital Light Processing (DLP) 3D-Printing

	High performance quantum dots synthesis, photo-lithography/direct laser patterning and micro-LED/OLED sources for RGB micro-display manufacturing: the MILEDI project	
15:00-15:15	Mahmoud Omar, Université Laval, Québec, Canada. (V) Synthesis and radiolabelling of ultrasmall colloidal nanoparticles for skin permeation measurements using a novel method based on nuclear imaging (PET)	C. Theocharatos, Computer Vision Systems, IRIDA Labs S.A., Greece An embedded vision-based solution for closing the loop in Additive Manufacturing
15:15-15:30	Palencia-Aguilar.Carla, GC2M Corp USA (V) Nanotechnology in Water and Oil Applications	Panagiotis M. Angelopoulos, National Technical University of Athens, Greece ABS/ expanded perlite microspheres filament for 3D printing of lightweight and thermal insulating components through Fused Filament Fabrication method
15:30-15:45	S. Stan, VDL Enabling Technologies Group, The Netherlands SCIL – An Emerging, Advanced Nanoimprinting Technology	JAC Sy, Industrial Technology Development Institute, Philippines Effect of gamma irradiation on the mechanical and physicochemical properties of Stereolithography (SLA) 3D printed Formlabs Grey resin
15:45-16:00		Huachao Mao Purdue University, USA A novel resin vat design to accelerate the resin flow in quasi-continuous vat photopolymerization

WS2-Nanocharacterization & I3D

	Timber Hall 2 & Virtual Room NN (Group A) Chair: S. Kassavetis. Gravalidis, Nanotechnology Lab LTFN	Virtual Room I3D (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN
16:30-16:45	INVITED(V)	INVITED
16:45-17:00	R. Arenal, U. Zaragoza, Spain In-situ TEM Studies on Low Dimensional Nanomaterials	Bandar AlMangour, Saudi Arabia Basic Industries Corporation, Saudi Arabia Strengthening of stainless steel by reinforcement addition and grain refinement during additive manufacturing
17:00-17:15	INVITED (V)	INVITED
17:15-17:30	V. Constantoudis NCSR Demokritos, Greece The challenge of nanocomplexity	Fedor Antonov, Anisoprint, Russia Anisoprinting technology: continuous fiber 3D printing for manufacturing of optimal composites
17:30-17:45	EU PROJECT (V) Sophie M Briffa, Eva Valsami-Jones, University of Birmingham, UK Material Characterisation in the NanoScale: The value of standard methods and their transferability	E.S. Vasilyeva*, A.V. Semench, D.V. Vibe, A.S. Gabriel Peter the Great St. Petersburg Polytechnic University, Russian Federation Development of a machine for the manufacture of micro-optical lens and layered geometric forms of chalcogenide
17:45-18:00	M. R. Koblischka Saarland University Germany (V) Superconducting nanowire networks and the paramagnetic Meissner effect.	EU PROJECT (L) Dr Ilise L Feitshans JD and ScM and DIR Emerging Laws for 3D Product Design

18:00-18:15	<p>E. G. Deze API Europe, Athens, Greece (L) Mechanical Properties & Microstructural Investigation of Nanocellulose Enriched Cementitious Materials Cured in Aggressive Environments</p>	<p>Dror Danai, Xjet Ltd., ISRAEL XJET NanoParticles Jetting Ceramic and metal additive manufacturing technologies & solutions</p>
18:15-18:30	<p>P. Ketikis National Technical Univ. of Athens, Greece (V) The effect of graphene oxide on thermomechanical and permeability properties of poly(dimethyl siloxane) composites</p>	
18:30-18:45	<p>L. Burr Swiss Center for Electronics and Microtechnology (CSEM), Switzerland (V) Hydrophobicity of nanomaterials measurements for risk assessment</p>	

Thursday 9th July

WS4-WS5

	Timber Hall 1 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
11:00-11:30	KEYNOTE (V) Prof. George Maliaras, Cambridge University, UK Electronics on the Brain	
	WS4 Timber Hall 1 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	WS5 Timber Hall 2 & Virtual Room ISFOE (Group A) Chair: A. Laskarakis, Nanotechnology Lab LTFN
11:30-12:00	INVITED (V) Dr. Francesco De Angelis, Italian Institute of Technology, Italy Plasmonic nanostructured surfaces for bio-interfaces and sensing of living cells	INVITED (V) A. Di Bartolomeo University of Salerno, Italy. Pressure, temperature and radiation effects on back-gate transistors based on layered 2D materials
12:00-12:15	INVITED (V) Dr. Paschalis Gkoupidenis, Max Planck Institute for Polymer Research, Germany Electrolyte-gated transistors for neuromorphic electronics	INVITED (V) A. Stergiou, National Hellenic Research Foundation, Greece Covalent functionalization of exfoliated MoS ₂ with organic motifs for the selective recognition of ions and molecules
12:15-12:30		
12:30-12:45	INVITED G.M. Farinola, Università degli Studi di Bari, Italy Photoactive materials for bioelectronics from photosynthetic microorganisms	O. Kochanowska, University of Warsaw, Poland (V) Laser-pulse-driven control of Landau-Zener transitions in graphene
12:45-13:00		J. Derlikiewicz, University of Warsaw, Poland (V) Vortex-like current density structures in graphene subjected to a bicircular laser field

WS4-WS5

	WS4 Timber Hall 1 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	WS5 Timber Hall 2 & Virtual Room ISFOE (Group A) Chair: A. Laskarakis, Nanotechnology Lab LTFN
14:00-14:15	INVITED (V) Vasiliki Giagka, Delft University of Technology, Netherlands Engineering long-lasting and spatially selective active neural interfaces for bioelectronic medicine	KEYNOTE Paul K Hurley, Tyndall National Institute, Ireland Investigating the Interface between MoS ₂ and Insulating Oxides
14:15-14:30		
14:30-14:45	INVITED (V) Eleonora Macchia, Åbo Akademi University, Finland Selective Single-Molecule Detection of clinically relevant biomarkers with an Organic Transistor	INVITED Dr. George Deligeorgis, FORTH IESL, Greece Carbon Nano-Tube and Transition Metal Dichalcogenide smart electronics
14:45-15:00		
15:00-15:15	INVITED (V) Prof. Beatrice Fraboni, University of Bologna, Italy Morphology and mobility as tools to control X-ray sensitivity in organic thin-films	INVITED (V) A. Krivosheeva Belarusian State University of Informatics and Radioelectronics, Belarus
15:15-15:30		

		Heterostructures of two-dimensional transition metal dichalcogenides: formation, ab initio modeling and possible applications
15:30-15:45	D. Kourkoulos, Coatema Coating Machinery GmbH, Germany Nanocellulose Coated Paper as Substrates for a sustainable, quantitative and environmentally friendly bio sensing platform	Najeh Jisrawi, Centre for Advanced Materials Research, UAE A study on the electronic properties of Graphene Nanoribbons using the Offset Logarithm function
15:45-16:00	J. Morgado Instituto de Telecomunicações, Portugal Opportunities and Challenges in the Use of Conductive Polymeric Scaffolds for Stem Cell Culture	A. I. Velea, Delft University of Technology, The Netherlands Soft, flexible and transparent graphene-based active spinal cord implants for optogenetic studies
16:00-16:15	Dimitrios A. Koutsouras Max Planck Institute for Polymer Research, Mainz, Germany (V) Microelectrodes coated with conducting polymers for bioelectronics: scaling properties and biosensing	
16:15-16:30	J. M. Marmolejo-Tejada Pontificia Universidad Javeriana, Colombia, (V) Partially-Oxidized Phosphorene-Based Sensors and Surface Oxidation Effects	
16:30-16:45	S.D. Psoma The Open University, U.K. (V) Computational analysis and design of microchambers for multianalyte aptamer-based biosensor applications	
16:45-17:00	S. Grammatikos, Aristotle University of Thessaloniki, Greece Synthesis and characterization of biofunctionalized AuNPs for future use in screen-printed electrochemical immunosensors	
17:00-17:15	Kalligosfyri Panagiota, University of Patras, Greece Gold nanoparticle-based biosensor for rapid liquid biopsy applications	
17:15-17:30	M. C. Suster, University of Warsaw, Poland Plasmonic nanoaperture arrays for biosensing applications	

WS3

	Timber Hall 1 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN	
17:30-17:45	INVITED (V)	
17:45-18:00	Dr. Mark Birch, University of Cambridge, UK Using nanoscale interactions to influence the repair and regeneration of osteochondral injuries	
18:00-18:15	INVITED M. Stojanovic, Columbia University Irving Medical Center, USA Molecular Computing on Cell Surfaces	
18:15-18:30	INVITED (Rescheduled for Friday 10 July 16:00-16:30)	
18:30-18:45	S.. Vainio, Oulu Central Hospital Oulu University, Oulu, Oulu, Finland	

	Skin as an organ in homeostasis and disease biomonitoring
18:45-19:00	E. Vasileiou Nanotechnology Lab LTFN, AUTH, Greece Development of a titanium nitride nanoparticles-based lateral flow assay for acute lymphoblastic leukemia diagnosis

Friday 10th July

WS2-Greek Projects

	WS2 Timber Hall 2 & Virtual Room NN (Group A) Chair: S. Kassavetis, Nanotechnology Lab LTFN	Greek Projects Timber Hall 1 & Virtual Room NN (Group B) Chair: C. Gravalidis, Nanotechnology Lab LTFN
11:00-11:15	A. Wosztyl, University of Warsaw, Poland (V) A gigantic Faraday effect in a semiconductive polymer doped with Fe ₂ O ₃ nanoparticles	INVITED Asterios Chatziparadis, General Secretariat of Research & Technology, Greece Research and Innovation in Nanotechnologies during the current programming period 2014 – 2020
11:15-11:30	M. Zuena Università degli Studi “Roma Tre”, Italy (V) An innovative multifunctional TEOS-based coating with antifouling properties for stone materials: comparison between commercial biocide and natural antifoulant product	
11:30-11:45	A. Kaldeli-Kerou PLiN Nanotechnology SA, Greece Copper-based Nanoparticles for Agricultural Applications	C. Gravalidis, Nanotechnology Lab LTFN "Semitransparent Organic and Printed Photovoltaics for Energy Efficient Mediterranean Greenhouses" (PHOTOKIPIA)
11:45-12:00	P. Kutálek, University of Pardubice, CZ (V) Ablation of binary chalcogenide glasses by UV ns laser	M. Gioti, Nanotechnology Lab LTFN "Printed OLEDs for intelligent, efficient & tunable solid-state lighting devices in large scale" (APOLLON)
12:00-12:15	Maria Stefanidou, AUTH Nanoparticles controlling self-healing properties in cement pastes	S. Dermenoudis, Nanotechnology Lab LTFN Development and Preclinical Validation of biofunctionalized Nanoparticles for targeted delivery of anti-thrombotic and anti-oxidant factors to treat Atherosclerosis (NanoAthero)
12:15-12:30	S. Pashayan, The Institute for Physical Research of NAS of Armenia, Armenia (V) Copper Oxide-based Thin Films and Heterostructures: Fabrication and Properties Investigation	Z. Chakim, BL-Nanobiomed PC 3D-Bioprinted Bone Tissue inside High Resolution 3D-Printed Molds for the Effective Treatment of Bone Tissue Deformations (OsteoFit)
12:30-12:45	INVITED (V) Vasileios Koutsos, The University of Edinburgh, United Kingdom Microbubble Agents for Biomedical Applications: Focus on NanoMechanics and the NanoShell	L. Patsiouras, OE-Technologies PC Development of Processes for the Electrostatic Deposition of Nanocoatings and Micro/Nanostructuring of Materials using Short & Ultra-short Laser Pulses(Spin Nano)
12:45-13:00		P. Mangelis, OE-Technologies PC Roof Integrated Conformable OPV Products for Energy Generation (OPENERGY)

WS3

	Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN
14:00-14:15	INVITED (V)
14:15-14:30	Prof. Ioannis S. Vizirianakis, Department of Pharmaceutical Sciences, AUTH, Greece

	Implementation of pharmacogenomics knowledge in the clinical setting to guide precision cancer therapy decisions
14:30-14:45	INVITED (L)
14:45-15:00	Dr ilise L Feitshans JD and ScM and DIR Safernano by design: enhancing commercialization of nano-enabled products
15:00-15:15	A. Ihnatsyeu-Kachan Korea Institute of Science and Technology, Republic of Korea (V) Biomimetic Gene-Silencing Nanoplatform for Therapy of Liver Cancer
15:15-15:30	M. Kiseleva Université Laval, Canada (V) A 3D-printed hybrid hydrogel-nanoparticle formulation as a localized delivery system for cervical cancer therapy
15:30-15:45	KEYNOTE (V)
15:45-16:00	Prof. Roger Leblanc Carbon Dots as Novel Vehicle for Drug Delivery in Modern Medical Healthcare
16:00-16:30	KEYNOTE S.. Vainio, Oulu Central Hospital Oulu University, Oulu, Oulu, Finland Skin as an organ in homeostasis and disease biomonitoring

WS3

	Timber Hall 2 & Virtual Room NN (Group A) Chair: C. Gravalidis, Nanotechnology Lab LTFN
16:30-16:45	KEYNOTE (V)
16:45-17:00	Prof. Elisa Konofagou, Columbia University, USA Noninvasive Drug Delivery Through the Opened Blood-Brain Barrier for the Treatment of Brain Diseases - From Mice to Humans
17:00-17:15	INVITED (V)
17:15-17:30	C. Kiparissides Centre for Research and Technology Hellas, Greece Recent Developments in Antigen-Specific Immunotherapies for the Treatment of Multiple Sclerosis
17:30-17:45	C. Kiparissides Centre for Research and Technology Hellas, Greece (V) SNEDDS Incorporating two Adjuvants as Potential Nanocarriers for Vaccines
17:45-18:00	EU PROJECT (V) D. Schmid; Swiss Center for Electronics and Microtechnology (CSEM), Switzerland Low-cost, versatile colorimetric reader for reactivity assessment of nanomaterials
18:00-18:15	S. Petanidis, Aristotle University of Thessaloniki, Greece. Dual photothermal MDSCs-targeted immunotherapy inhibits lung immunosuppressive metastasis by enhancing T-cell recruitment.
18:15-18:30	F. Meier Postnova Analytics GmbH, Germany (V) Multidetector Field-Flow Fractionation Techniques for the Characterization of Liposomal Drug Formulations
18:30-18:45	M. Natalia D.S. Cordeiro, University of Porto, Portugal In Silico Tool For Probing The Multiple Antibacterial Profiles Of Nanoparticles By A Qsar Perturbation Model
18:45-19:00	E. Ismail, Cape peninsula university of technology, South Africa (V) The green synthesis of Nobel metals nanoparticles via medicinal plants extracts and their biological activity against Streptococcus mutans bacterial strain

POSTER

WS1 Tuesday 7th July (Virtual Poster Area I)

- area I-Group L Study of Front Panel Electrode Coatings for Combined Visible and Short Wavelength Infrared Photodetectors
M. Aleksandrova Technical University of Sofia, Department of Microelectronics, Bulgaria
- area I-Group M Modeling the Optical Properties of Plasmonic Nanoparticles via Finite Element Analysis
Efstratios K. Antoniou, Aristotle University of Thessaloniki, Greece
- area I-Group N Plasmon sensitivity of different silver nanoplates obtained by “seed mediated growth”
M. Pulvirenti, University of Catania, Italy
- area I-Group O Fabrication of plasmonic transition metal nitride nanoparticles by ultrashort pulse laser ablation in liquids,
A. Koutsogianni, Nanotechnology Lab LTFN, Greece

WS2 Tuesday 7th and Wednesday 8th (P2-1 to 25 Virtual Poster Area II, P2-26 to 39 Virtual Poster Area III)

- area II - Group A Surface Properties of Ceria Synthesised Using Triton-X Based Reverse MicroEmulsions
Charis R. Theocharis University of Cyprus, Cyprus
- area II - Group B Nanocellulose Containing Concretes: Evaluation of NC properties affecting UHDC & Development of Mixing Protocols
E. G. Deze API Europe, Athens, Greece
Mesoporous Silica based copper catalytic materials: Synthesis, Characterization & deNOx Evaluation
E. G. Deze Institute of Nanoscience and Nanotechnology-INN, NCSR "Demokritos", Athens, Greece
- area II - Group C Influence of ITO thickness on the optical and electrical properties of the ITO/ZnO/glass bi-layers deposited by pulsed D.C. magnetron sputtering for chalcogenide photovoltaics
R.A. Mereu Babeş-Bolyai University, Romania
- area II - Group D Potential of silver nanoparticles in biological applications
Hochvaldova L. Palacký University Olomouc, Czech Republic.
- area II - Group E Novel Organically Modified Silica Nanoparticles for Dental Applications
A. Nikolaidis Aristotle University of Thessaloniki, Greece
- area II - Group F MOF-based carbon materials for enhanced electrochemical performance
K. Sielicki, West Pomeranian University of Technology, Poland
- area II - Group G Multiphoton Continuous Wave (CW) laser lithography enabling structuring beyond the diffraction limit
Theodoros Manouras Opticon ABEE, Greece
- area II - Group H The effect of glass surface modification on metal nanoparticles adhesion: thermal glass poling vs. chemical functionalization
TS. Selvam Ruđer Bošković Institute, Croatia
- area II - Group I Morphological changes of silicon nitride-based nanopowders prepared by two-stage spray pyrolysis method
H. Osip, AGH University of Science and Technology, Poland
Synthesis of binary AlN/TiN nanopowders for no-additive high temperature and high pressure (HT-HP) sintering
H. Osip, AGH University of Science and Technology, Poland
Direct oxygen content determinations in various non-oxide inorganic substrates used for the mechanochemical preparation of kesterite Cu₂ZnSnS₄ semiconductor
H. Osip, AGH University of Science and Technology, Poland
- area II - Group J Structural changes of titanium nitride TiN upon no-additive, high pressure and high temperature (HP-HT) sintering of nanopowders
J.F. Janik AGH University of Science and Technology, Poland.

- Silicon nitride-based nanopowders prepared by spray pyrolysis from selected organosilicon compounds
 J. F. Janik, AGH University of Science and Technology, Krakow, Poland
 Elaboration of analytical methodology for direct determination of non-intentional oxygen contents in the semiconductor kesterite $\text{Cu}_2\text{ZnSnS}_4$ nanopowders
 J. F. Janik, AGH University of Science and Technology, Poland
- area II - Group K Hybrid nanostructures based on E.coli protein with iron oxide inorganic core
 S.Yu. Turishchev, Voronezh State University, Russia
- area II - Group L Physico-chemical properties of nanocrystalline $\text{LiFeGe}_2\text{O}_6$
 O. Skurikhina, Slovak Academy of Sciences, Slovakia
- area II - Group M Mechanochemical synthesis, characterization, and properties of Cu_2Se
 Gáborová K., Slovak Academy of Sciences, Slovakia
- area II - Group N Iron oxide@graphitic carbon core-shell nanoparticles embedded in ordered mesoporous N-doped carbon matrix as an efficient cathode catalyst for PEMFC
 Panagiotis Tsiakaras, University of Thessaly, Greece
 Enhanced electrocatalytic oxidation of urea-rich wastewater over novel bifunctional V_2O_3 nanosheets anchored N-doped-carbon encapsulated Ni heterostructure
 Panagiotis Tsiakaras, University of Thessaly, Greece
 Electrocatalytic reduction of nitrogen: A simple strategy for continuous regulation of Faradaic efficiency by controlling H^+ ions transfer rate
 Panagiotis Tsiakaras, University of Thessaly, Greece
- area II - Group O Polymer / fly ash composites: Structure, morphology and dynamic thermomechanical properties
 A. Stimoniaris, University of Western Macedonia, Greece
- area II - Group P Preparation by direct mixing and characterization of Graphene/poly(dimethyl siloxane) composites
 P. Ketikis, National Technical Univ. of Athens, Greece
- area II - Group Q Evidence of visible quantum cutting phenomenon in co-precipitation derived Eu^{3+} doped $\beta\text{-NaGdF}_4$ nanorods
 Y. Cheroura, Université Clermont Auvergne, France
- area II - Group R Coprecipitation synthesis and optical characterization of Tb^{3+} , and $\text{Tb}^{3+}\text{-Yb}^{3+}$ doped $\beta\text{-NaYF}_4$ nanophosphors
 Z. Smara, Université Clermont Auvergne, France
- area II - Group S Hyphenation of Field-Flow Fractionation and ICP-MS to overcome the size limitations of spICP-MS
 Drexel R. Postnova Analytics GmbH, Germany
- area II - Group T Composite core-shell nanostructures synthesis by aerosol-assisted CVD
 I. Tyurikova, K. Tyurikov, S.Alexandrov, V.A. Klinkov
 Peter the Great St.-Petersburg Polytechnic University Polytechnicheskaya, Russia
- area II - Group U Surface and Wetting properties of Laser patterned Transition Metal Nitrides
 M. Nousi, Nanotechnology Lab LTFN, Greece
- area II - Group V LbL films and microcapsules based on protamine and pectin-Ag nanocomposite
 A. Hileuskaya Institute of Chemistry of New Materials of NASB, Belarus
- area II - Group W Growth of molybdenum sulphide ultra-thin films and their characterization
 G. Papadimitropoulos NCSR "Demokritos", Greece
 Laser annealing of amorphous molybdenum sulphide ultra-thin films
 G. Papadimitropoulos NCSR "Demokritos", Greece
- area II - Group X Morphological, structural, and electrical properties of vanadium oxide thin films
 V. Tsouti NCSR "Demokritos", Greece
- area II - Group Y Synthesis of CoAl_2O_4 spinel coating by magnetron DC sputtering
 D. Honcharenko Saint Petersburg Polytechnic University Russia

- area III - Group A Using carbon nanotubes based electrode in a two-chamber Microbial Electrolysis Cell for hydrogen production: comparison with conventional anode materials
G. Antonopoulou Institute of Chemical Engineering Sciences, Greece
- area III - Group B Catalytic activity of nanostructured carbon electrodes for electrosynthesis of H₂O₂ through water oxidation: Predictions from first principles
S. Piskunov, University of Latvia, Latvia
- area III - Group C Orientation imaging on grains within (La,Sr)MnO₃ nanowires
M. R. Koblischka Saarland University, Experimental Physics, Germany
- area III - Group D 1D crystal geometry optimization using evolutionary computations
T. Tarkowski University of Warsaw, Poland
- area III - Group E Effect of plasmonic gold nanoparticles on collagen
L. Draghiciu IMT Bucharest, Romania
- area III - Group F Ab-initio theoretical calculations and experimental synthesis of Sm_{1-x}MMxCo₅ (x = 0.1 – 1.0, MM = mischmetal)
G. Sempros Aristotle University of Thessaloniki, Greece

WS3 Thursday 9th and Friday 10th (Virtual Poster Area III)

- area III - Group A Novel manufacturing in producing nanofilters with enhanced properties against viral particles
V. Karagkiozaki, BL Nanobiomed P.C., Greece
- area III - Group B Extrusion-Based Cell-laden Gelatin/Alginate Hydrogel Bioprinting for Skin Tissue Engineering
Z.Chakim, BL Nanobiomed P.C., Greece
- area III - Group C Synthesis of polymer-coated silver nanoparticles for antimicrobial applications
L. Gkionis, BL Nanobiomed P.C., Greece
Inclusion of Quercetin in Chitosan-capped Gold Nanoparticles. In vitro evaluation of their antioxidant and cytotoxic effect on human dermal fibroblasts
L. Gkionis, BL Nanobiomed P.C., Greece
- area III - Group D Quercetin PLGA nanoparticles against LPS induced inflammation in fibroblast cell lines
E. Papadopoulou, Aristotle University of Thessaloniki, Greece
- area III - Group E Polyvinyl alcohol (PVA) functionalized MgFe₂O₄ ferrite nanoparticles: encapsulation and release of doxorubicin for enhanced anticancer therapy
S. Mokhosi, University of KwaZulu-Natal, South Africa
- area III - Group F An Application of Multivariate Data Analysis to Photoacoustic Imaging for the Spectral Unmixing of Gold Nanorods in Biological Tissues
M. Maturi University of Bologna Italy
- area III - Group G Effects of silver nanoparticles on innate immunity in zebrafish and the protective effect of pterostilbene
Ying-Jan Wang, National Cheng Kung University, Taiwan
- area III - Group H Development and sterilization of a novel, modified, drug-eluting intraocular lens
Karamitsos A., 2nd University Ophthalmology Department, AUTH, Thessaloniki
- area III - Group I Identification and delivery of microRNAs that target the ribosomal machinery as a therapeutic strategy for hematological malignancies
Ioannis S. Vizirianakis, Aristotle University of Thessaloniki, Greece
- area III - Group J Synthesis and characterization of Chios Mastiha nanoparticles for biomedical applications (MASTIHA-NANO study)
Matthaios Didagelos, AHEPA University Hospital, Greece
- area III - Group K Synthesis of Mastiha based nanofibers for coating of angioplasty balloon
Ioakeim Giagtzidis, Aristotle University of Thessaloniki, Greece
- area III - Group L Stability of micron-sized cavitation nuclei within a therapeutic ultrasound field
Antonios N. Pouliopoulos, Columbia University, USA

- area III - Group M Engineering gold nanoparticle morphology for optimised microspectroscopic imaging of blood cancer cells
S. Boca, Babes-Bolyai University, Romania
- area III - Group N Modified with Curcumin PLGA nanoparticles in intranasal delivery of Galantamine adsorbed in novel Carbon Dots for Alzheimer's disease treatment
S.G. Nanaki, Aristotle University of Thessaloniki, Greece
- area III - Group O Leflunomide nanoparticles preparation via SBMA modified Chitosan
Stavroula G. Nanaki Aristotle University of Thessaloniki, Greece
- area III - Group P Simulation of waves of nonREM sleep
T.A. Vdovenkova, T.V.A. Canada
- area III - Group Q Versatile mixed lipid monolayer shell and biodegradable polymer core Nanoparticles for biomedical applications
R. Cecchi NEST, Scuola Normale Superiore, Italy
- area III - Group R Study of synergistic antibacterial effects of silver nanoparticles combined with Vancomycin against *E. faecium* using fluorescence microscopy
L. Válková, Palacky University, Czech Republic
- area III - Group S Hybrid Nanoparticles for stimuli-triggered release of Tyrosine Kinase Inhibitors
Tatar A-S, Babes-Bolyai University, Romania
- area III - Group T Increasing cell viability in 3D-Bioprinted Alginate-based hydrogels
Papadopoulos Nanotechnology Lab LTFN Aristotle University of Thessaloniki, Greece

WS4 Thursday 9th July (Virtual Poster Area I)

- area I - Group L Culture-independent detection of carbapenemase-producing bacteria with plasmonic nanosensors
Giulia Santopolo Son Espases University Hospital; Palma de Mallorca, Spain.
- area I - Group M Nanoparticle Reservoirs for Paper Inmunosensors
Alejandra Alba-Patiño Son Espases University Hospital, Spain
- area I - Group N Synthesis, Characterization, and Sintering Behavior of Doped Nanocrystalline Ceria Powders
I.A. Kobrykhno, E.V. Bobrynina, A. Semench, E. S. Vasilyeva, D. Honcharenko, O.V. Tolochko High School of Physics and Materials Technology, Saint Petersburg Polytechnic University, Russia
- area I - Group O Flexible sensing solutions for healthcare and biotechnological applications
R. Carvalho, Funcionais e Inteligentes (CeNTI), Portugal

WS5 Thursday 9th July (Virtual Poster Area I)

- area I - Group P Theoretical prediction of Sb₂Se₃ growth morphology and orientation on muscovite mica substrates
M. Bertašius Center for Physical Sciences and Technology (FTMC), Lithuania
- area I - Group Q Influence of intrinsic vacancies on the photocatalytic properties of hybrid ZnS/WS₂ nanotubes: Prediction from first principles
I. Isakovica, University of Latvia, Latvia
- area I - Group R CO₂ electroreduction toward C₂H₄ at Cu decorated graphene nanofilm: Prediction from first principles
S. Piskunov, University of Latvia, Latvia
- area I - Group S Investigation of graphene based resistive strain sensors for vital signal monitoring
V. Tsouti National Center for Scientific Research "Demokritos", Greece
- area I - Group T Conductive Smart-Inks development base on Graphene and MoS₂ and their uses in Ink-Jet systems
J. Rubio, Universidad Central
- area I - Group U Investigation of treatment parameters on electrical properties of graphene
E.S. Vasilyeva^{1*}, D.N. Tonkov¹, M.V. Kobylatskaya¹, V.E. Gasumyants^{1,2}

¹Higher School of Engineering and Physics, Saint Petersburg Polytechnic University Polytechnicheskaya St., 29, Saint-Petersburg, Russia

²Department of Physical Electronics, Herzen State Pedagogical University of Russia Kazanskaya St., 6, Saint-Petersburg, Russia