

SMS / Sensors / NanoMed / EGF 2022
Joint International Conferences Program
26 - 28 October 2022, Athens - Greece

Wed. 26 Oct. 2022		
08:00 - 12:00	Participants registration.	
SMS / EGF / Sensors / NanoMed 2022 Joint Plenary Session I		
Athenaeum Conference Centre		
Session's Chairs: Dr. Qi Zhang, Basque Center for Materials, Applications and Nanostructures, Spain Dr. Guillaume Lamblin, Luxembourg Institute of Science and Technology (LIST), Luxembourg		
10:00 - 10:30	Ceramic inclusions/polymer matrix nanocomposites, following a route to multifunctional performance G. Psarras	Prof. Georgios C. Psarras, University of Patras, Greece
10:30 - 11:00	2D Nanostructures at Atomic Scale: From Energy an Environmental Applications to Quantum Devices. J. Arbiol	Prof. Jordi Arbiol, ICREA, ICN2, CSIC and BIST, Catalonia, Spain
11:00 - 11:30	In situ monitoring of graphene growth on solid and liquid Cu sub- strates C. Tsakonas, A.C. Manikas, I. Sfougaris and C. Galiotis	Prof. Costas Galiotis, University of Patras, Greece
11:30 - 12:00	Functionalized gold nanorods for the treatment of head and neck cancer L. García-Hevia and M. López-Fanarraga	Dr. Lorena García Hevia, Cantabria-Idival University, Spain
12:00 - 12:30	Miniature power harvesters and solar farms enabled by 2D materials E. Kymakis	Dr. Emmanuel Kymakis, Hellenic Mediterranean University, Greece
12:00 - 14:00	Lunch Break	
SMS / Sensors / NanoMed 2022 Joint Session I. A: Materials synthesis, characterization and properties		
Session's Chairs: Prof. Georgios C. Psarras, University of Patras, Greece Dr. Edit Csapó, University of Szeged, Hungary		
14:00 - 14:30	Electrocaloric effect in medium entropy-like ceramics S. Wei, B. Peng, L. Liu and Q. Zhang	Dr. Qi Zhang, Basque Center for Materials, Applications and Nanostructures, Spain
14:30 - 15:00	Bioceramic Surfaces on Metallic Substrate: Synthesis, Characterization and Applications K. Borodianskiy	Prof. Konstantin Borodianskiy, Ariel University, Israel
15:00 - 15:30	Copper/nanocarbons composites: ongoing exploration of new multifunctional materials. J. Barbe, A.E. Alves Silva, A. Valéro, J. Crepellière, D. Del Frari, A. Duhain, D. Arl, E. Barbolini, D. Lenoble and G. Lamblin	Dr. Guillaume Lamblin, Luxembourg Institute of Science and Technology (LIST), Luxembourg
15:30 - 15:45	Reduction of Stress Concentration in Notched Composite Laminates - A Finite Element Analysis R. Ramma, B. Murari and A.A Khatibi	Mr. Bill Murari, RMIT University, Melbourne, Australia
15:45 - 16:00	Functionalization of flax fibers with silazanes: Effect on silicone-based composites A. Ishak, R. Sonnier, B. Otazaghine and C. Longuet	Mr. Antoine Ishak, IMT Mines Alès, France
16:00 - 16:30	Afternoon Coffee Break	
Session's Chairs: Prof. Ioannis Papakonstantinou, University College London, UK Dr. Jerome Brunet, Clermont Auvergne, University, France		
16:30 - 17:00	Fluorescent noble metal nanoclusters with tunable optical features: synthesis, characterization and biomedical applications E. Csapó, D. Ungor, G. Gombár, R. Béltéki, Á. Turcsányi and L. Kuklis	Dr. Edit Csapó, University of Szeged, Hungary

17:00 - 17:15	Immobilization of bisacylphosphinoxides and acylgermanes: Formation and application of photoreactive surfaces and particles W. Kern , M. Müller, Ch. Bandl, M. Haas and M. Drusgala	Prof. Wolfgang Kern , University of Leoben, Austria
17:15 - 17:30	Hydrophobic coating encompassing visibility-on-demand for smart and rapid quality control C. Bandl , W. Kern, M. Müller and N. Krempf	Dr. Christine Bandl , University of Leoben, Austria
17:30 - 17:45	Atmospheric Pressure Plasma Coatings for Corrosion Protection of 3D-Printed Aluminum and Titanium Alloys A. M. Schwan , E. Pycha, S. Augl, D. Heim, A. Hinterer, M. Stummer, J. M. Lackner and W. Waldhauser	Dr. Alexander M. Schwan , Joanneum Research, Austria
17:45 - 18:00	Adequate TiAlN thin films deposited by sputtering for thermistor sensors: the study of conduction mechanisms and the microstructure role on the electrical properties B. Martins , C. Patacas, F. Fernandes, A. Cavaleiro and Pedro M. Faia	Mr. Bruno Martins , Pedro Nunes Institute, Portugal
18:00 - 18:15	Biomimetic Coatings to Regulate Biological Adhesion A. Corozzi, G. Bassi, M. Caruso , F. Furlani, M. Montesi, S. Panseri, M. Raimondo and A. Rossi.	Ms. Maria Caruso , ISTEC CNR, Italy
18:15 - 18:30	Electroconductive, mechanically resistant, IR-reflective, and antibacterial silk fabric covered with AgNWs A. Baranowska-Korczyn , A. Nejman, M. Rosowski and M. Cieślak	Dr. Anna Baranowska-Korczyn , Lodz Institute of Technology, Poland
18:30 - 18:45	Improvement of Thermal Comfort, Antibacterial and Electrical Properties of Aramid Textile Material with Silver Nanowires A. Nejman , A. Baranowska-Korczyn, G. Celichowski and M. Cieślak	Mrs. Alicja Nejman , Lodz Institute of Technology, Poland

Wed. 26 Oct. 2022		
EGF2022 - Session I. B:		
Graphene and 2D Materials synthesis, characterization, and properties		
Arcade I Conference Room		
Session's Chairs: Prof. Michele Merano, University of Padova, Italy Prof. Costas Galiotis, University of Patras, Greece		
14:00 - 14:15	CVD graphene as an effective tool for the protection of artworks G. Gorgolis , M. Kotsidi, M.G. Pastore Carbone, G. Paterakis, G. Anagnostopoulos, G. Trakakis, A. Manikas and C. Galiotis	Dr. Giorgos Gorgolis , University of Patras, Greece
14:15 - 14:30	Multiple graphene chemical modification strategies for the development of electrical conductive nanocomposite at low percolation threshold T. Lalire , B. Otazaghine, A. Taguet and C. Longuet	Mr. Thibaut Lalire , IMT Mines Ales, France
14:30 - 14:45	High Optical Response of Room Temperature Graphene Bolometers Fabricated through Various Methods I.J. Agulo , I.M. Verzola, J. Rivera, M. Andalis, J.A. Pasion, and M.A. Madarang	Dr. Ian Jasper Agulo , University of the Philippines Baguio, Philippines
14:45 - 15:00	Composition and structure of the universal, airborne hydrocarbon contaminant layer on van der Waals material surfaces A. Pálincás , G. Kálvin, K. Kandrai, M. Szendrő, P. Vancsó, G. Németh, M. Németh, Á. Pekker, J.S. Pap3, P. Petrik, K. Kamarás, L. Tapasztó and P. Nemes-Incze	Dr. András Pálincás , Centre for Energy Research-Budapest, Hungary
15:00 - 15:15	In situ Transformation of Graphene to Diamond-Like Carbon for Conductive Coatings R. Gorthy , F. Hou, I. Mardon, D. Tang and C. Goode	Dr. Rukmini Gorthy , Cirrus Materials Science Ltd., New Zealand
15:15 - 15:30	An Electrochemical Approach for the Surface Modification of 2H-Phase MoS ₂ nanosheets towards Enhanced Catalysis S. García-Dalí, J.I. Paredes, S. Villar-Rodil, A. Martínez-Jódar , A. Martínez-Alonso and J. M. D. Tascón	Mr. Alberto Martinez Jodar , INCAR-CSIC, Spain
15:30 - 15:45	Growth and physics-chemical characterization of graphene electrodes synthesized by electrochemical exfoliation J. A. Arevalo, J. E. Alfonso , J. J. Olaya and O. Suarez	Dr. José Edgar Alfonso , National University of Colombia, Colombia
15:45 - 16:00	Graphene Oxide Reinforced Asphalt Pavements A.P. Chassiakos, P.M. Farmakis , N. Lalioti, L.C. Kontaxis and J. Parthenios	Mr. Panagiotis Farmakis , University of Patras, Greece
16:00 - 16:30 Afternoon Coffee Break		
Session's Chairs: Dr. Emmanuel Kymakis, Hellenic Mediterranean University, Greece Prof. Costas Galiotis, University of Patras, Greece Prof. Imre Dékány, University of Szeged, Hungary		
16:30 - 17:00	Measurement of the out-of-plane optical constants of a two-dimensional crystal M. Merano	Prof. Michele Merano , University of Padova, Italy
17:00 - 17:15	Novel device engineering strategies for printable photovoltaics G. Kakavelakis , E. Alharbi, T. Baumeler and M. Graetzel	Dr. George Kakavelakis , Swiss Federal Institute of Technology, Switzerland
17:15 - 17:30	Machine learning integrated with microscale numerical simulation to investigate the thermal conductivity of cementitious composites reinforced by graphene derivatives A. Montazerian , J.A. Overli and S. Goutianos	Mr. Arman Montazerian , Norwegian Univ. of Science and Technology, Norway
17:30 - 17:45	A leap from non-conductive to conductive states: transformation of multilayered graphene oxide structures to carbon powders and films T. Szabó , A. Talyzin and I. Dekany	Dr. Tamas Szabo , University of Szeged, Hungary
17:45 - 18:00	Graphene-based composite with high stable dispersion in ethanol. A. Martis , S. Bocchini and F. Pirri.	Mr. Alberto Martis , Polytechnic University of Turin, Italy
18:00 - 18:15	Semiclassical analysis of tunneling in graphene in the presence of a smoothly inhomogeneous external electromagnetic field M. Perel	Dr. Maria Perel , St Petersburg State Univ.,

		Russia and Eskisehir Technical University, Turkey
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Thu. 27 October 2022		
SMS 2022 Session II. A: Functional / Multifunctional, Composites and Responsive Materials		
Athenaeum Conference Centre		
Session's Chairs: Prof. Grigoris Kaltsas, University of West Attica, Greece Dr. Qi Zhang, Basque Center for Materials, Applications and Nanostructures, Spain Dr. Christos Riziotis, National Hellenic Research Foundation, Greece		
09:00 - 09:30	Functional nanostructures based on smart copolymers S. Pispas	Prof. Stergios Pispas , National Hellenic Research Foundation- Athens, Greece
09:30 - 10:00	Shape Memory Polymer Composites for Space Sustainability L. Santo	Prof. Loredana Santo , University of Rome Tor Vergata, Italy
10:00 - 10:15	Facile preparation of MXene/rGO composites with hydrophilic/hydrophobic properties N. Todorova , V. Marinova, D. Dimitrov and C. Trapalis	Dr. Nadia Todorova , Institute of Optical Materials & Technologies-BAS, Bulgaria
10:15 - 10:30	Patterned and Collective Motion of Densely Packed Tapered Multi-Responsive Liquid Crystal Cilia R.J.H. van Raak , S. J. A. Houben, A.P.H.J. Schenning and D.J. Broer	Mr. Roel J. H. van Raak , Eindhoven University of Technology, The Netherlands
10:30 - 11:00 Morning Coffee Break		
Session's Chairs: Prof. Evangelos Hristoforou, National TU of Athens, Greece Prof. Grigoris Kaltsas, University of West Attica, Greece Prof. Ioannis Papakonstantinou, University College London, UK		
11:00 - 11:30	Engineering Optical Structures and Functional Materials towards Photonic Devices Development C. Riziotis	Dr. Christos Riziotis , National Hellenic Research Foundation Theoretical and Physical Chemistry Institute, Greece
11:30 - 11:45	Nanotextured surfaces based on mixtures of amphiphilic diblock copolymers as bioinspired hybrid materials M. Bina , A. Krywko-Cendrowska, D. Daubian, and C.G. Palivan	Ms. Maryame Bina , University of Basel, Switzerland
11:45 - 12:00	Optimizing thickness ratio (a-Si:H/Al) during Aluminum induced crystallization (AIC) to obtain higher pressure sensitivity in devices built using AIC-Silicon A. Ratna Arun and R. O Dusane	Mr. Anand Ratna Arun , Indian Institute of Technology Bombay, India .
12:00 - 12:15	DIC application for damage detection in FRP composite specimens based on an example of a shearing test D. Ziaja , M. Jurek, R. Śliwa, A. Wiater and M. Kulpa	Dr. Dominika Ziaja , Rzeszow University of Technology, Poland
12:15 - 12:30	Reactivity of Azide-Terminated Self-Assembled Monolayers L. Vellutini , A. Hachin, T. Buffeteau and E. Boisselier	Prof. Luc Vellutini , University of Bordeaux, France
12:00 - 14:00 Lunch Break		
Sensors 2022 Session II.B: Sensing materials, physical / chemical sensors, optical sensors, etc		
Session's Chairs: Prof. Loredana Santo, University of Rome Tor Vergata, Italy Dr. Christos Riziotis, National Hellenic Research Foundation, Greece		
14:00 - 14:30	Overview and Recent Findings on Curcuminoids as Molecular Platforms for Sensors and Electronic Components N. Aliaga-Alcalde , A. González-Campo, D. Herrera-Miranda, R. Zaffino, D. Riba-López, T. Cardona-Lamarca, M. Surós-Román, L. Rodríguez-Cid, R. Díaz-Torres, C. Domingo, M. Soler, D. Dulić, L. Echegoyen, F. Prins, E. Burzuri, H. van der Zant and E. Ruiz	Prof. Nuria Aliaga-Alcalde , ICREA - ICMAB/CSIC, Spain
14:30 - 14:45	Rapid Ethidium Bromide detection using Ultramicroelectrode Sensors M. Valente , I. Seymour, V. Alessandria, L. Cocolin, K. Meade and A. O'Riordan	Mr Marcello Valente , Tyndall National institute, Ireland

14:45- 15:00	High sensing potentialities of tetra-tert-butyl-metallophthalocyanines-based acoustic microsensors for xylenes measurement in air at room temperature. J. Brunet , A. Pauly, C. Varenne, A.L. Ndiaye, T. Gueye and A. Kumar	Dr. Jerome Brunet , Clermont Auvergne, University, France
15:00 - 15:15	Exploring new strategies for vapor explosive detection through solid-state QDs-based sensors F. Mitri , A. De Iacovo, S. De Santis, C. Giansante, G. Sotgiu and L. Colace	Mrs. Federica Mitri , University Roma Tre, Italy
15:15 - 15:30	Fully optimized waveguide enhanced Raman spectroscopy sensors Z. Liu , M. A. Ettabib, J. S. Wilkinson and M.N. Zervas	Mr. Zhen Liu , University of Southampton, UK
15:30 - 15:45	Low Power Wearable Sensors for monitoring Knee Joint Instabilities K.S. Prakash, V.C. von Einem, S.K. Muthulagu, P. Agarwal, A. Jamali , P. Woias and L.M. Comella	Mr. Armin Jamali , University of Freiburg, Germany
15:45 - 16:00	Microfluidics and QCM biosensing – Challenging the Standards M. Forinová, A. Pilipenco, M. Vrabcová, M. Spasovová, P. Yudin, H. Lisalová, N. S. Lynn Jr.	Dr. N. Scott Lynn Jr , Institute of Physics of the Czech Academy of Sciences, Czech Rep.
16:00 - 16:30 Afternoon Coffee Break		
Smart Materials and Surfaces - SMS 2022 Session II.C		
Session's Chairs: Prof. Nuria Aliaga-Alcalde, ICREA - ICMAB/CSIC, Spain Dr. Christos Riziotis, National Hellenic Research Foundation, Greece		
16:30 - 17:00	Printed sensors and devices on flexible substrates G. Kaltsas	Prof. Grigoris Kaltsas , University of West Attica, Greece
17:00 - 17:15	Accurate dipole radiation model for waveguide grating couplers Z. Liu , M. A. Ettabib, J. S. Wilkinson and M.N. Zervas	Mr. Zhen Liu , University of Southampton, UK
17:15 - 17:30	Curcumin-loaded PCL highly porous composites for rapid amine gas detection D. Kosyvaki , A. Barbetta, M. Contardi, M. Bustreo, K. Dziza, S. Lauciello, A. Athanassiou and D. Fragouli	Ms. Despoina Kosyvaki , Italian Institute of Technology-Genova, Italy
17:30 - 17:45	Fabrication of biomimetic fibrous substrate with hierarchical micro-structure patterning for reconfigurable soft electronics Z.V. Soreño , I. Apsite and L. Ionov	Mr. Zhander Vohr Soreño , University of Bayreuth, Germany
17:45 - 18:00	Development of Sensors for Detection of Bisphenols in Water K. Žagar Soderžnik , A. Korent, Š. Trafela, P. Trebše and M. Bavcon Kralj	Dr. Kristina Zagar Soderžnik , Jožef Stefan Institute, Slovenia

Thu. 27 October 2022		
NanoMed 2022 Session II. A: Nanomaterials for Biomedical / Tissue engineering, drug, and gene delivery		
Arcade I Conference Room		
Session's Chairs: Prof. Rita Cortesi, University of Ferrara, Italy Dr. Cleofe Palocci, University of Rome "La Sapienza", Italy		
09:00 - 09:30	Overcoming barriers in Nanomedicine: from cancer to Obstetrics B. Godin	Prof. Biana Godin, Houston Methodist Research Institute, USA
09:30 - 10:00	New strategies for the risk evaluation of carotid artery disease patients at the nanoscale F.A. Carvalho, C.S. Lopes, R. Melo, L.M. Pedro and N. C. Santos	Prof. Nuno C. Santos, IMM Lisbon, Portugal
10:00 - 10:15	Amphiphilic block copolymers in hybrid vesicles and micelles towards scaffolds for nanoreactors C. Ade, E. Brodzkij, I. N. Westensee and B. Stadler	Dr. Carina Ade, Aarhus University, Denmark
10:15 - 10:30	Computational Assessment of Three-Dimensional Scaffolds for Bone Regeneration O. Ntousi, M. Roumpi, P. Siogkas and D. Fotiadis	Mrs. Ourania Ntousi, University of Ioannina, Greece
10:30 - 11:00 Morning Coffee Break		
11:00 - 11:30	Functionalization of nanomaterials with proteins to improve biomimetics M. L. Fanarraga	Prof. Monica Lopez Fanarraga, Cantabria-Idival University, Spain
11:30 - 12:00	Nanotechnology for precision medicine and personalized beauty and healthcare M. Colombo	Prof. Miriam Colombo, University of Milano-Bicocca, Italy
12:00 - 12:15	Nanosystems as a therapeutic approach for the treatment of psoriasis J. Castanheira and A.R.T.S Araujo	Dr. André R.T.S. Araujo, Polytechnic Institute of Guarda, Portugal
12:15 - 12:30	Self-assembly of 2D Materials for 3D Tissue Engineering Platforms T. Raicevic, T. Teshima, M. Barbone, F. Stratmann, V. Rincón Montes, K. Müller, A. Bausch and B. Wolfrum	Ms. Teodora Raicevic, Technical University of Munich, Germany
12:00 - 14:00 Lunch Break		
NanoMed 2022 Session II. B: Nanomaterials for Biomedical / Tissue engineering, drug, and gene delivery		
Session's Chairs: Prof. Nuno C. Santos, IMM Lisbon, Portugal Prof. Miriam Colombo, University of Milano-Bicocca, Italy Dr. Aleksandra Ellert-Miklaszewska, Nencki Institute- Warsaw, Poland		
14:00 - 14:30	Composition and Functionality Relationship in Dexamethasone loaded Avidin Nucleic Acid NanoAssemblies E. Schiavon, M.B. Violatto, U. Christen, P. Invernizzi, C. Tondello, M. Carbone, S. Bernardotto, A. Mattarei, P. Bigini and M. Morpurgo	Prof. Margherita Morpurgo, University of Padova, Italy
14:30 - 14:45	Design of poly(lactide-co-glycolide) particles: synthesis optimization and controlled drug release N. Varga, A. N. Kovács, Á. Turcsányi, V. Hornok and E. Csapó	Dr. Norbert Varga, University of Szeged, Hungary
14:45 - 15:00	Neuroprotective Peanut Agglutinin-Targeted Nanoparticles for Ocular Drug Delivery Applications P. Colucci, L. Dente, C. Gabellini and V. Raffa	Ms. Patrizia Colucci, University of Siena, Italy
15:00 - 15:15	Using of short peptides attached to the polymer carrier as either anti-microbial, cell-penetrating, or targeting agent of the whole nanotherapeutics E. Grosmanová, R. Pola, M. Pechar, M. Filipová, B. Vokatá, P. Ulbrich, J-L. Coll and T. Etrych	Dr. Eliska Grosmanova, Institute of Macromolecular Chemistry, Czech Rep.
15:15 - 15:30	Peptide conjugation with magneto-polymeric nanoparticles to improve nanomaterials transport across the blood-brain barrier C. I. P. Chaparro, M. Cavaco, M. Castanho, J.P. Borges, V. Neves and P. I. P. Soares	Ms. Catarina Chaparro, NOVA School of Science and Technology- Lisbon, Portugal

15:30 - 15:45	Exploring silicon-nanowire patterned surfaces for yeast transformation L. Gogianu , M. Popescu and M. Simion	Ms. Larisa Gogianu , IMT-Bucharest, Romania
15:45 - 16:00	Interaction of magnetic iron oxide nanoparticles with primary human monocytes and adrenocortical carcinoma cell lines C. Hong , A. Sorushanova, O. Covarrubias-Zambrano, P. Owens, M. O'Halloran, P. Prakash, S. H. Bossmann and M. C. Dennedy	Mr. Cong Hong , National University of Ireland, Galway, Ireland
16:00 - 16:15	Nanowire-based electrodes for electrophysiological studies: Fabrication, on-bench characterization and in vitro biocompatibility A. Arché-Núñez , B.L. Rodilla, C. Fernández-González, C. Guillén-Colomer, S. Ruiz-Gómez, J. Camarero, R. Miranda, P. Ocón, L. Pérez, M. Concepción Serrano and M. Teresa González	Ms. Ana Arché Núñez , IMDEA Nanociencia- Madrid, Spain
16:00 - 16:30 Afternoon Coffee Break		
Session's Chairs: Prof. Margherita Morpurgo, University of Padova, Italy Prof. Rita Cortesi, University of Ferrara, Italy		
16:30 - 17:00	Dendrimer nanocarriers as an efficient tool to deliver therapeutic siRNA to glioma-associated microglia and macrophages A. Ellert-Miklaszewska , P. Pilanc-Kudlek, L. Ding, Y. Jiang, A.-J. Roura, K. Poleszak, S. Cyranowski, J. Swatler, B. Kaza, S. Giorgio, L. Peng and B. Kaminska	Dr. Aleksandra Ellert-Miklaszewska , Nencki Institute- Warsaw, Poland
17:00 - 17:30	Ratiometric Sensing Systems for Intracellular and Extracellular pH Mapping at Single Cell Level in Tumor Models L.del Mercato	Dr. Loretta del Mercato , CNR- NANOTEC, Italy
17:30 - 17:45	Ultrastructural Visualization of Combinatorial Nanodrug Interaction with Mitochondria of Breast cancer cells S. Raveendran , A. Sen, T. Maekawa and D.S.Kumar	Dr. Sreejith Raveendran , Teesside University, UK
17:45 - 18:00	Anti-tumour/MRI agent loaded LDL for personalized therapy applications S. Rakhshan , D. Alberti, R. Stefania, V. Bitonto, S. Geninatti, A. Deagostino and S. Parisotto	Ms. Sahar Rakhshan , University of Turin, Italy
18:00 - 18:15	Polymer conjugates with anticancer agent cytarabine with increased stability and different speed of hydrolytic release for highly effective antitumor therapy R. Pola , E. Grosmanová, M. Pechar, E. Pokorná, P. Klener and T. Etrych	Dr. Robert Pola , Institute of Macromolecular Chemistry, Czech Rep.
18:15 - 18:30	Taking advantage of invasive pest species in biotechnology: Spanish slugs (<i>Arion vulgaris</i>) as a potential exosome source for cell delivery applications M. Liegertová , A. Semerádtová, O. Janoušková, M. Kocholátá, M. Průšová, L. Němcová, M. Štofík, L. Kříženecká and J. Malý	Dr. Michaela Liegertova , University of Jan Evangelista in Ústí nad Labem (UJEP), Czech Rep.
18:30 - 18:45	Engineered chitosan based nanocarriers for therapeutic miRNAs de-livering to human melanoma cells: in vitro and in vivo studies C. Palocci , L. Chronopoulou , B. Arasi, F. Pedini , F. Felicetti and N. Felli	Dr. Cleofe Palocci , University of Rome "La Sapienza", Italy
18:45 - 19:00	Optimizing Coiled Coil Interactions for Peptide-PAINT Super-Resolution Imaging A.S. Eklund , M. Ganji and R. Jungmann	Ms. Alexandra Eklund , Max Planck Institute of Biochemistry, Germany

Fri. 28 Oct. 2022		
SMS / EGF 2022 Session III.A: Applications for energy and environment		
Athenaeum Conference Centre II		
Session's Chairs: Prof. Georgios C. Psarras, University of Patras, Greece Prof. Loredana Santo, University of Rome Tor Vergata, Italy Prof. Michele Merano, University of Padova, Italy		
09:00 - 09:30	Luminescent Solar Concentrators: A versatile photonic platform enabled by extreme photon concentration I. Papakonstantinou M. Portnoi, Z. Xu and C. Tummeltshammer	Prof. Ioannis Papakonstantinou , University College London, UK
09:30 - 10:00	Controlled assembly of liquid phase exfoliated 2D materials for functional materials and devices. A. Dalton	Prof. Alan Dalton , University of Sussex, UK
10:00 - 10:30	Morning Coffee Break	
10:30 - 10:45	Integration of efficient single photon sources into plasmonic devices by two photon polymerization of multifunctional photopolymers D. Ge, A. Issa, A. Abdelaal, A. Broussier, C. Couteau, S. Blaize, R. Bachelot and S. Jradi	Dr. Safi Jradi , University of Technology of Troyes, France
10:45 - 11:00	Phosphate-functionalized graphene obtained by a fast, one-step electrochemical strategy for capacitive energy storage E.H. Ramirez-Soria, S. García-Dalí, J.M. Munuera, D. Fernández-Carrasco , S. Villar-Rodil, J.M.D. Tascón, J.I. Paredes and J. Bonilla-Cruz	Mr. Daniel Fernandez Carrasco , INCAR- CSIC, Spain
11:00 - 11:15	Novel Approach to Enhance Electrochemical Performance of Na _{0.7} CoO ₂ Layered Cathode and Nitrogen-Sulphur Co-doped Graphene as Anode for Sodium-ion Batteries M. Saquib Khan, N. Bhardwaj, H. Singh Kushwaha, M. K. Banerjee and K. Sachdev	Prof. Kanupriya Sachdev , Malaviya National Institute of Technology, India
11:15 - 11:30	Graphene Aerogel Electrode for Advanced Fuel Cell and CO ₂ Reduction Electrolyser T.X. Liu , Y. Wang and H. Lei	Mr. Terence Xiaoteng Liu , Northumbria University, UK
11:30 - 11:45	Observation of strongly correlated electronic ground state in rhombohedral graphite P. Vancsó , I. Hagymási, M. Syahid Mohd Isa, Z. Tajkov, K. Mártí, L. Oroszlány, J. Koltai, A. Alassaf, P. Kun, K. Kandrai, A. Pálinkás, L. Tapasztó and P. Nemes-Incze	Dr. Peter Vancso , Centre for Energy Research, Institute of Technical Physics and Materials Science- Budapest, Hungary
11:45 - 12:00	Capacitive de-ionization using reduced graphene oxide-based electrodes for desalting synthetic and real saline waters A. Aouni , P. Valerio and H. Hafiane	Dr. Anissa Aouni , CERTE, Tunisia

Fri. 28 Oct. 2022		
NanoMed / Sensors 2022 Session III.B		
Athenaeum Conference Centre III		
Session's Chairs: Dr. N. Scott Lynn Jr, Institute of Physics of the Czech Academy of Sciences, Czech Rep. Dr Toby Hallam, Newcastle University, UK		
08:30 – 09:00	Development of a device for the rapid detection of SARS-CoV-2 based on electrochemical biosensor A. Georgas, S. Angelopoulos, A. Ferraro and E. Hristoforou	Prof. Evangelos Hristoforou , National TU of Athens, Greece
09:00 - 09:15	Bacterial Biosensors that can compute R. Daniel	Prof. Ramez Daniel , Israel Institute of Technology, Israel
09:15 - 09:30	Optical Imaging of Cell Action Potentials via Graphene Based Sensing Devices J. Gorecki and S. Krause	Dr. Jon Gorecki , Queen Mary University of London, UK
09:30- 09:45	Impact of the matrix on the detection of ammonia in Polyaniline: Polyurethane sensors E. Assunção da Silva , N. Redon, J-L. Wojkiewicz and C. Duc	Dr. Edilene Assunção da Silva , IMT Nord Europe-Douai, France
10:00 - 10:30	Morning Coffee Break	
10:30 - 10:45	Development of a novel design of Microfluidic Impedance Cytometry for improved sensitivity and cell identification M. Warren , A. Shakouri, V. Pacheco-Peña and T. Hallam	Mr. Michael Warren , Newcastle University, UK
10:45 - 11:00	Development of a Polyaniline/Polystyrene/Au Nanoparticles-based electrochemical biosensor for the detection of SARS-CoV-2 S. Trafela , K. Žagar Soderžnik, A. Korent, A. Krishnamurthy, K. Žužek and S. Šturm	Dr. Spela Trafela , Jožef Stefan Institute, Slovenia

Posters Session

N.	Poster Title	Author, Affiliation, Country
1.	Convenient synthesis of electro active copolymers of N-vinylcarbazole via emulsion copolymerization. M. Sharifian , W. Kern and G. Riess	Mr. Mohammadhossein Sharifian , University of Leoben, Austria
2.	Immobilization of germanium-based photo-initiators for surface-initiated polymerization. M. Müller , W. Kern, C. Bandl, M. Haas and M. Drusgala	Mr. Matthias Müller , University of Leoben, Austria
3.	Development and characterization of a new cork-based composites produced with plastic wastes. S. Petlitckaia , T. Barboni and P-A. Santoni	Dr. Svetlana Petlitckaia , University of Corsica, France
4.	Investigating flammability properties and smoke production of new cork-based composites produced with plastic wastes. T. Barboni , S. Petlitckaia and P-A. Santoni	Mr. Toussaint Barboni , University of Corsica, France
5.	Pullout behavior of NiTi crimped SMA fibers made by cold drawing with considering wavelength and height. TH. Park, J. Kang , B. Nhan and E. Choi	Prof. Eunsoo Choi , Hongik University- Seoul, Rep. of Korea
6.	Sol-gel synthesis of transparent and luminescent SiO ₂ @ SrAl ₂ O ₄ Eu, Dy, B materials V.Vitola and M. Leimane	Dr. Virginija Vitola , University of Latvia, Latvia
7.	Dependence of the Structure and Electronic Properties of Dia-mond-Like a-C Films with Palladium Nanoparticles on Synthesis Conditions. A. P. Ryaguzov, A.R. Assembayeva , R.R. Nemkayeva, N.R. Guseinov and M.M Myrzabekova	Ms. Aliya Assembayeva , Al-Farabi Kazakh National University, Rep. of Kazakhstan
8.	Synthesis and photoluminescence properties of carbon based nanoparticles. I. Dékány , Á. Imre Deák and L. Janovák	Prof. Imre Dékány , University of Szeged, Hungary
9.	Triboelectric Nanogenerator Based on Ferroelectric Composite for Energy Harvesting. K.Malnieks , A.Sutka, L.Lapcinskis and A.Linarts	Dr. Kaspars Malnieks , Riga Technical university, Latvia
10.	Influence of hybrid carbon lignocellulose filler on reduction toxicity of gaseous thermal decomposition products, including dioxins, PAH and smoke during combustion of NR rubber composites P.Rybiński and A.Głowacki	Prof. Przemysław Rybiński , Jan Kochanowski University, Poland
11.	Synthesis of Graphene oxide/ TiO ₂ -based photoreactive nanocomposite thin films. Á. Deák , L. Janovák and I. Dékány	Ms. Ágota Imre-Deák , University of Szeged, Hungary
12.	Energy Loss Rate in Graphene at Quantizing Magnetic Fields M. Tsaousidou and S. S. Kubakaddi	Dr. Margarita Tsaousidou , University of Patras, Greece
13.	Functionalisation of CVD graphene for gas sensing. A.K. Aladim , C.S. Rigby and T. Hallam	Mr. Abdullah Aaladim , Newcastle University, UK
14.	DNA analogues-directed immobilization in fabrication of microarrays for immunodiagnosics of viral infections. S. Karoń , M. Drozd and E. Malinowska	Ms. Sylwia Karoń , Warsaw University of Technology, Poland
15.	Topologies of synthetic gene circuit for optimal fold change activation. D.Naffaa and R Daniel	Mrs. Doaa Ali-Naffaa , Technion Institute of Technology, Israel
16.	Application of molecular vapour deposited dielectrics for graphene-based biosensor passivation and improvements in graphene device homogeneity and functionality. M. Ali , J. Mitchell, F. Walters, G. Burwell, K. Rejnhard, C. Jenkins, E.Daghigh Ahmadi, S. Sharma and O. Guy	Mr. Muhammad Ali , Swansea University, UK
17.	Photocatalytic Quantum Dot-Armed Bacteriophage for Combating Drug-Resistant Bacterial Infection X. Fan and L. Wang	Mr. Xin Fan , Free University of Berlin, Germany
18.	Synthesis and characterization of smart fluorescent polymers for bio-medical applications. V.Vitale , S. Pragliola, F. Grisi and C. Costabile	Dr. Vissia Vitale , University of Salerno, Italy

19.	Exploring the Properties of Anti fouling Nanocoatings for Biosensing M. Spasovová , F. Dyčka, M. Procházka, J. Štěpánek, I. Barvík, O. Kylián, M. Vrabcová, N. Scott Lynn Jr. and H. Lísalová	Mrs. Monika Spasovová , Charles University, Czech Rep.
20.	Characteristic of ceramic-polymer materials enhanced with collagen for biomedical applications. B. Tyliszczak , M. Bańkosz, A. Drabczyk, S. Kudłacik-Kramarczyk, A. Tomala, W. Florkiewicz, K. Piętak, D. Słota and A. Sobczak-Kupiec	Prof. Bożena Tyliszczak , Cracow University of Technology, Poland
21.	Hydroxapatite-reinforced coatings as drug carriers for controlled release of clindamycin. A. Sobczak-Kupiec , D. Słota, W. Florkiewicz, K. Piętak and M. Dyląg	Prof. Agnieszka Sobczak-Kupiec , Cracow University of Technology, Poland
22.	Chitosan grafted poly (ethylene glycol) methyl ether acrylate based micro/nanocarriers for biomedical applications C.A. Peptu , C.L. Logigan, C. Delaite, C.E. Tiron, C. Peptu and M. Popa	Dr. Catalina A. Peptu , Gheorghe Asachi Technical University of Iasi, Romania
23.	Nanoparticles based on chitosan grafted with PEG derivative as carriers for antibiotics. C.L. Logigan , C. Delaite, C.E. Tiron, C. Peptu, M. Popa and C.A. Peptu	Dr. Corina L. Logigan , Gheorghe Asachi Technical University of Iasi, Romania
24.	Nanofabrication of tuneable plasmonic noble metal nanoparticles and their subsequent formation onto cultivation plates used in photothermal therapy. L. Hochvaldová , L. Válková, K. Simkovičová, K. Plecho, L. Kvítek, H. Kolářová and A. Panáček	Ms. Lucie Hochvaldová , Palacky University, Czech Rep.
25.	Laser-induced In vitro photothermal therapy using noble metal nanolayers L. Válková , L. Hochvaldová, K. Simkovičová, A. Panáček and H. Kolářová	Mrs. Lucie Válková , Palacky University, Czech Rep.
26.	Thymol Self-emulsifying Polysaccharide-based Microbeads Cross-linked by Polyvalent Ions: Synthesis, Structure and Dynamics. M. Urbanova , J. Brus, M. Pavelkova and K. Kubova	Dr. Martina Urbanova , Institute of Macromolecular Chemistry CAS, Czech Rep.
27.	How to Describe Microbead Formulations of Active Pharmaceutical Ingredients with Micro- and Nanodomain Architecture at Atomic Resolution Level. J. Brus , J. Czernek and M. Urbanova	Dr. Jiri Brus , Institute of Macromolecular Chemistry CAS, Czech Rep.
28.	Gastro-Resistant Self-Emulsifying Pellets as Stable Delivery Systems for Volatile Monoterpene Plant Drug. J. Macku, G. Koutna, K. Kubova , M. Urbanova, E. Maskova, J. Masek, M. Pavelkova, J. Muselik, A. Franc, J. Vyslouzil, D. Vetchy and J. Brus	Dr. Kateřina Kubová , Masaryk University, Czech Rep.
29.	Self-emulsifying System Incorporated in a Polymeric Carrier for Controlled Delivery of Thymol. G. Koutna, M. Pavelkova , K. Kubova, M. Urbanova, J. Muselik, J. Vyslouzil, D. Vetchý and J. Brus	Dr. Miroslava Pavelková , Masaryk University, Czech Rep.
30.	Composition and Functionality Relationship in Dexamethasone loaded Avidin Nucleic Acid NanoAssemblies. E. Schiavon , M.B. Violatto, U. Christen, P. Invernizzi, C. Tondello, M. Carbone, S. Bernardotto, A. Mattarei, P. Bigini and M. Morpurgo	Mrs. Elisa Schiavon , University of Padova, Italy
31.	Encapsulation of SerpinB3 Protein in wet Sol-Gel silica /HPMC composite allows its sustained release in a bioactive form. S. Bernardotto , M. Albiero, A. Fullin, E. Franceschinis, P. Pontisso, GP. Fadini and M. Morpurgo	Mr. Simone Bernardotto , University of Padova, Italy
32.	Exploring Nanoformulations for Therapeutic Induction of Necroptosis. T. Chu , C. Rios Luci, C. Maksoudian, A. Sargsian, B.B. Manshian and S. J. Soenen	Ms. Tianjiao Chu , KU Leuven, Belgium
33.	Core-Multishell Nanocarrier Systems for Drug Delivery. K. Rajes , K. A. Walker, S. Hadam, F. Zabihi, J. Ibrahim-Bacha, G. Germer, P. Patoka, B. Wassermann, F. Rancan, E. Rühl, A. Vogt and R. Haag	Ms. Keerthana Rajes , Free University of Berlin, Germany
34.	Using biocompatible polymers for improving the antibody drug conjugate concept. O. Lidický , T. Etrych and P. Klener	Mr. Ondřej Lidický , Institute of Macromolecular Chemistry, Czech Rep.
35.	Screening DNA condensation properties of multifunctional PAMAM dendrimers with different amine contents for targeted Gene Therapy B. Bulkurcuoğlu , M.U. Gurbuz, M. Tulu, M. Matuskova, K. Pavlov, S. Tyciakova and S. Ercelen	Mr. Bünyamin Bulkurcuoğlu , TUBITAK MRC Genetic Engineering and Biotechnology Institute, Turkey
36.	Positively Charged Mesoporous Silica Nanoparticle as a Medicinal Carrier for Crossing the Blood Brain Barrier in Chicken Embryo. Y.-P. Chen, C.-K. Lin, Y.-S. Yang and C.-T. Chen	Prof. Chien-Tsu Chen , Taipei Medical University, Taiwan

37.	Intranasal administration of dexamethasone-loaded nanoparticles improves lung tropism and reduces steroid off-target accumulation in healthy and in pulmonary fibrosis-affected mice A. Morelli , MB. Violatto, A. Passoni, A. Lanno, GY. Moscatiello, M. Corti, E. Schiavon, M. Morpurgo and P. Bigini	Ms. Annalisa Morelli , IRCCS Mario Negri- Milan, Italy
38.	Cholesterol supplementation via intranasal administration as a possible therapeutic strategy in Huntington's disease M. Favagrossa , A. Passoni, R. Camastra, R. Bagnati, G. Birolini, M. Valenza, E. Cattaneo, L. Colombo and M. Salmona	Ms. Monica Favagrossa , IRCCS Mario Negri- Milan, Italy
39.	Recombinase polymerase amplification on silicon nanowires. M.A. Popescu , L. Gogianu and M. Simion	Dr. Melania-Ana Popescu , IMT Bucharest, Romania
40.	Development of surface-enhanced Raman spectroscopy (SERS) based label-free diagnosis of liver and gallbladder injury. S. Lee , J-M. Namgoong and J. Ki Kim	Dr. Sanghwa Lee , Asan Medical Center- Seoul, Rep. of Korea
41.	Negatively charged liposomes for the delivery of manganese derivatives for diagnostic applications. M. Sguizzato, L. Marvelli, M. Drechsler, L. Del Bianco, F. Spizzo, A. Boschi and R. Cortesi	Prof. Rita Cortesi , University of Ferrara, Italy
42.	Functionalization of self-assembled monolayer with gold nanoparticles for protein detection in tear film A. Hachin , G. Raïche-Marcoux, T. Buffeteau, S. Bonhommeau, E. Boisselier and L. Vellutini	Ms. Axelle Hachin , University of Bordeaux, France
43.	The controversial properties of graphene oxide and reduced graphene oxide and impact on microalgae <i>Chlamydomonas reinhardtii</i> . Z. Bytešníková , M. Koláčková, M. Dobešová, P. Švec and L. Richtera	Dr. Zuzana Bytešníková , Mendel University in Brno, Czech Rep.
44.	Fabrication of Nucleus-Free Single-Crystal Graphene-Mesh with Zig-zag Edges in the Wafer Scale B. Tian	Dr. Bo Tian , KAUST, Saudi Arabia
45.	Wafer-scale single-crystal high-crystal-quality monolayer graphene grown on sapphire substrates J. Li	Dr. Junzhu Li , KAUST, Saudi Arabia
46.	Combining Droplet Microfluidics with Magnetoresistive Sensors for Rapid and Specific Detection of <i>Klebsiella pneumoniae</i> C. L. Nogueira , S. Abalde-Cela, P. P. Freitas, S. Cardoso and C. M. Carvalho	Ms. Catarina Nogueira , International Nanotechnology Laboratory (INL), Portugal
47.	Piezoelectric polarization in fluoropolymer obtained via immersion precipitation and low pH exposure V. Khurana and D. Gupta	Mr. Vaibhav Khurana , Indian Institute of Technology Bombay, India
48.	Gold Nanoparticle Formulations for Efficient Delivery of Lupeol: A Promising Therapeutic Approach in the Management of Skin Pathologies I. Macaso , C. Soica, C. Popa, M. Cabuta, I. Marcovici, I. Pinzaru, F. Bociort, A. Motoc, G. Draghici and C. Dehelean	Ms. Ioana Macaso , "Victor Babes" University of Medicine and Pharmacy, Romania
49.	Pharmacotoxicological Insights Into Supramolecular Complexes With Natural Compounds M. Cabuta , R.C. Racea, I. Macaso, R. Buzatu, C. Soica, S. Dinu and L. Rusu	Ms. Madalina Cabuta , "Victor Babes" University of Medicine and Pharmacy, Romania
50.	Green synthesis of reduced graphene oxide aerogels G. Paterakis , G. Gorgolis, I. Sfougaris, N. Koutroumanis, B. Saner Okan, M. Hezarkhani and C. Galiotis	Dr. George Paterakis , University of Patras, Greece

Conference Venue Ground Level Floor Plan

