



SMS 2023 / NANOMED 2023 / EGF2023 / SENSORS 2023

JOINT CONFERENCES

25 - 27 October 2023

Albufeira, Portugal

Conferences' Program

Organizer



SETCOR
Conferences & Exhibitions

SMS / NanoMed / Sensors / EGF 2023
Joint International Conferences Preliminary Program
25 - 27 October 2023, Albufeira/Algarve - Portugal

Wed. 25 Oct. 2023		
08:00 - 12:00	Conference Registration - Grande Real foyer	
SMS 2023 / EGF 2023 / Sensors 2023 / NanoMed 2023 Joint Plenary Session I		
Conference Room Sala Balaia		
Session Chairs: Prof Tatiana Itina, Jean Monnet University, France Prof. Sandra Pulcinelli, UNESP, São Paulo State University, Brazil. Prof. Pankaj Vadgama, Queen Mary University of London, UK		
10:30 - 11:00	The Mechanics of Deformation in Nanocomposites Reinforced with Graphene and other 2D Materials. R. J. Young	Prof. Robert J Young, University of Manchester, UK
11:00 - 11:30	Nano-surface science: chemical approaches to optical sensors T. Trindade	Prof. Tito Trindade, University of Aveiro, Portugal
11:30 - 11:45	Anthracene functionalized nanomaterials for selective and reversible self-assembly of fullerenes P. Piotrowski, A. Krogul-Sobczak and A. Kaim	Dr. Piotr Piotrowski, University of Warsaw, Poland
11:45 - 12:00	Effect of gadolinium in the structure of CeO2 T. Petkova, V.Boev, V.Ilcheva, G.Avdeev, N.Bozhanova, O.Kostadinova and V.Zhelev	Prof. Tamara Petkova, Institute of electrochemistry and energy systems, Bulgaria
12:00 - 14:00	Lunch Break - Real Restaurant	
SMS 2023 / Sensors 2023 / NanoMed 2023 Joint Session I. A: Materials synthesis, characterization and properties		
Session Chairs: Prof. Tito Trindade, University of Aveiro, Portugal Prof. Christophe Caucheteur, University of Mons, Belgium		
14:00 - 14:30	Smart Nanohybrids and Multi-material Nanoparticles: Synthesis, Properties, Modelling and Applications T. E. Itina	Prof Tatiana Itina, Jean Monnet University, France
14:30 - 14:45	Developing sandwich structure with novel biobased composite using additive manufacturing M. Fazeli and J. Lipponen	Dr. Mahyar Fazeli, Aalto University, Finland
14:45 - 15:00	Functional Block Copolymer Cubosomes with Broad Applicability. M. Schumacher, W. G. Zeier and A. H. Gröschel	Mr. Marcel Schumacher, University of Münster, Germany
15:00 - 15:15	3D Nanofabrication of Arbitrary Functional Materials. X. Lyu, M. Zhang, Z. Zheng, A. Shiva and M. Sitti	Mr. Xianglong Lyu, Max Planck Institute for Intelligent Systems, Germany
15:15 - 15:30	Investigation of parameters setup efficiency during abrasive waterjet turning of different materials. A. Štefek and L. M. Hlaváč	Mr. Adam Štefek, Technical University of Ostrava, Czech Rep
15:30 - 15:45	Reconfigurable micro-metastructures with wide-spectrum programmability actuated by hydrogel muscles. M. Zhang and M. Sitti	Dr. Mingchao Zhang, Max Planck Institute for Intelligent Systems, Germany
15:45 - 16:00	Investigation of Nonreciprocal Metasurfaces: Exploring Simple Structure and Smart Functions. K. Takahagi and A. Tennant	Mr. Kazuhiro Takahagi, The University of Sheffield, UK
16:00 - 16:30	Afternoon Coffee Break - Grande Real Foyer	
Session Chairs: Dr. Petr Sittner, Czech Academy of Sciences, Czech Republic Prof Tatiana Itina, Jean Monnet University, France		
16:30 - 17:00	Tilted fiber Bragg gratings (TFBGs): From multiparametric sensors to plasmonic biosensors. C. Caucheteur	Prof. Christophe Caucheteur, University of Mons, Belgium

17:00 - 17:15	Design and Additive Manufacturing of Newly Developed Mechanical Metamaterials for Structural Applications. M. Fleisch , A. Thalhamer 1, G. Pinter 2, S. Schlögl 1, M. Berer	Mr. Mathias Fleisch , Polymer Competence Center Leoben GmbH, Austria
17:15 - 17:30	Manufacturing of Soft Dielectric Actuator by multi-material Fused Filament Fabrication. I. Ragu , S. Schlögl, J. Brancart, B. Vanderborght, C. Holzer and M. Berer	Mr. Ivan Raguž , Polymer Competence Center Leoben GmbH, Austria
17:30 - 17:45	From unit cells to multifunctional components- 3D-printed metamaterials. E. Truskiewicz , M. Fleisch, J. Lackner and M. Berer	Ms. Eliza Truskiewicz , Polymer Competence Center Leoben GmbH, Austria
17:45 - 18:00	Production and Reforming of Glucose into High-Value Chemicals Using Nanostructured WO ₃ and WO ₃ /TiO ₂ photoanodes. K. Jakubow-Piotrowska , B. Witkowski and J. Augustynski	Dr. Katarzyna Jakubow-Piotrowska , University of Warsaw, Poland
18:00 - 18:15	Development of electroanalytical devices for assessment of food safety and quality parameters in fish and shellfish. R. Torre , E. Costa-Rama, H.P.A. Nouws and C. Delerue-Matos	Ms. Ricarda Torre , REQUIMTE/LAQV- ISEP, Portugal

Wed. 25 Oct. 2023		
SMS 2023 / NanoMed 2023 - Session I. B: Smart coatings and Surfaces / Biomaterials		
Conference Room Sala Santa Eulália		
Session Chairs: Prof. Redouane Borsali, Univ Grenoble Alpes, France Prof. Roland Fortunier, Ecole Centrale Lyon, France Prof K Jimmy Hsia, Nanyang Technological University, Singapore		
14:00 - 14:30	Effect of cold plasma process parameters for organosilicon deposition on corrosion protection performance. C. Jama	Prof. Charafeddine Jama, Centrale Lille Institute, France
14:30 - 14:45	Plasma Electro Oxidation technology as a clean and efficient alternative for the development of advanced coatings on light alloys. R. Bayón, P. Fernández-López, S. Alves and E. Gutiérrez-Berasategui	Dr. Francesco Pagano, TEKNIKER. Basque Research and Technology Alliance, Spain
14:45 - 15:00	Novel PEO coatings developed on a secondary cast Al-Si alloy under pulsed bipolar polarisation for brake applications. P. Fernández-López, A. Rogov, S. Alves, R. Bayón, I; Quintana and A. Yerokhin	Dr. Patricia Fernández López, TEKNIKER. Basque Research and Technology Alliance, Spain
15:00 - 15:15	Multi-scale Simulation of Oxidation Effects on Wetting Properties of Femtosecond Laser-treated Surface. I. S. Omeje and T.E. Itina	Mr. Ilemona S. Omeje, Jean Monnet University, France
15:15 - 15:30	Laser-based production of anti-stick coatings on CFRP rolls. M. Dahmen, C. Hensch and S. Fink	Mr. Marius Dahmen, Fraunhofer Institute for Laser Technology ILT, Germany
15:30 - 15:45	Innovative Solar Thermal Collector Coatings for Improved Mechanical Properties and Energy Efficiency. I. Pana, A. C. Parau, M. Dinu, L. R. Constantin, A. E. Kiss, A. Vladescu (Dragomir) and C. Vitelaru	Dr. Iulian Pana, Nat. Institute of Research and Dev. for Optoelectronics - INOE2000, Romania
15:45 - 16:00	Anti-microbial surfaces for use in aircraft cabins. S. Geier, S. Koch, F. Kühnast, P. Wierach and R. Möller	Dr. Sebastian Geier, German Aerospace Center (DLR), Germany
16:00 - 16:30	Afternoon Coffee Break - Grande Real Foyer	
Session Chairs: Prof. Charafeddine Jama, Centrale Lille Institute, France Prof K Jimmy Hsia, Nanyang Technological University, Singapore		
16:30 - 17:00	Self-assembly of carbohydrate block copolymers: from glyconanoparticles to thin films. R. Borsali	Prof. Redouane Borsali, Univ Grenoble Alpes, France
17:00 - 17:15	Transparent Silver-based Coatings Embedded in Oxide Matrices used for Antibacterial Applications. C. Vitelaru, A.C. Parau, A. E. Kiss, I. Pana, M. Dinu, L. R. Constantin, A. Vladescu(Dragomir), L. E. Tonofrei, C.S. Adochite, S. Costinas, L. Rogozea, M. Moga, M. E. Idomir and M. Badea	Dr. Catalin Vitelaru, National Institute for Research and Development in Optoelectronics - INOE 2000, Romania
17:15 - 17:30	Novel coatings for alumina nanoporous membranes: investigation of in vitro antifouling properties. M. Moaness, S.A.M. El-Sayed, H. H. Beherei and M. Mabrouk	Dr. Mostafa Mabrouk, National Research Centre-Cairo, Egypt
17:30 - 17:45	Electrospun Nanofibers Activated by Amoxicillin Loaded Mesoporous Titania for Bone Regeneration. M. Moaness, M. Mabrouk, B. E. Abdel-Ghany, Z. A. Salem B. M. Abdel-Hady and H. H. Beherei	Dr. Mona Moaness, National Research Centre, Cairo, Egypt
17:45 - 18:00	Comparative Neuroprotective Potential of Nanoformulated and Free Resveratrol against Cuprizone-enhanced Neuroinflammation. S. A. M. El-Sayed, G. Ibrahim Fouad, M.Z. Rizk, D. B. Fayed, H.H. Beherei and M. Mabrouk	Dr. Sara A. M. El-Sayed, National Research Centre-Cairo, Egypt
18:00 - 18:15	Creating and exploring non-reciprocal colloidal microparticles as swimmers E. Coimbra, S. Sacanna, N. J. O Silva and F.L. Sousa1	Mr. Eduardo Coimbra, University of Aveiro, Portugal

Wed. 25 Oct. 2023		
EGF 2023 - Session I. C: Graphene and 2D Materials synthesis, characterization, and properties		
Conference Room Sala Algarve		
Session Chairs: Prof. Robert J Young, University of Manchester, UK Dr. Artur M. Pinto, LEPABE- University of Porto, Portugal		
14:00 - 14:30	Bringing atomic precision to the synthesis of graphene-based lateral heterostructures. A. Mugarza	Prof. Aitor Mugarza , Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain
14:30 - 15:00	Molecular Modelling of Structure and Mobility of Aqueous Electrolytes in Neutral and Charged Graphene Nanochannels. M. Lísal	Prof. Martin Lísal , Institute of Chemical Process Fundamentals- Prague, Czech Rep.
15:00 - 15:15	Lateral Growth of Tungsten Disulfide-Graphene Heterostructures using Chemical Vapour Deposition for Large Scale 2D Devices Fabrication. S. Alodan , H. Bai, H. Almousa, A. Bin Muhammad Mustafa, S. Ramadan and, N. Klein	Ms. Sarah Alodan , Imperial College London, UK
15:15 - 15:30	Growth of III-V Semiconductors on Graphene. N. Nateghi and O. Moutanabbir	Dr. Nima Nateghi , TAV College- Montreal, Canada
15:30 - 15:45	Van der Waals Semiconductors: Exploring the Potential of Oxidation-Induced Heterostructures. G. D'Olimpio , A. Politano and D. Bukhvalov	Dr. Gianluca D'Olimpio , University of L'Aquila, Italy
15:45 - 16:00	Thermal probe of correlated states in bilayer graphene. F. Ghahari	Prof. Fereshte Ghahari , George Mason University, USA
16:00 - 16:30 Afternoon Coffee Break - Grande Real Foyer		
Session Chairs: Prof. Robert J Young, University of Manchester, UK Dr. Artur M. Pinto, LEPABE- University of Porto, Portugal		
16:30 - 17:00	Colorimetric, Quantitative Chemical Detection by MOF-Based Test Strips: From Fundamental Studies to Corporate Development of a Novel Field-Deployable Sensing Platform. S. M. Humphrey	Prof. Simon M. Humphrey , The University of Texas at Austin, USA
17:00 - 17:15	Graphene functionalization via electrochemical Pd nanoparticles deposition to enhance ammonia sensing. S. Freddi , M. C. R. Gonzalez, H. H. Creus and L. Sangaletti	Dr. Sonia Freddi , Cattolica del Sacro Cuore University, Italy
17:15 - 17:30	Molecularly imprinted sensors for electrochemical analysis of pharmaceuticals in environmental waters. P. Rebelo , J. G. Pacheco, I. V. Voroshylova, I. Seguro, A. Melo, M. N. D. S. Cordeiro and C. Delerue-Matos	Ms. Patrícia Rebelo , REQUIMTE/ LAQV/ GRAQ Porto, Portugal
17:30 - 17:45	Advancing Chemical Sensors through Novel Architectures Based on Functional Hybrid Nanofibers. D.S. Correa	Dr. Daniel S. Correa , Embrapa Instrumentação, Brazil
17:45 - 18:00	Terahertz Array Beamforming Using Low-Voltage Graphene-Modulators. R. Silva and P. M. Mendes	Mr. Rui Silva , University of Minho, Portugal

Thu. 26 October 2023		
EGF 2023 / SMS 2023 Session II. A: Graphene properties and applications Functional / Multifunctional, Hybrid, Composites and Responsive Materials		
Conference Room Sala Balaia		
Session Chairs: Prof. Robert J Young, University of Manchester, UK Prof. K Jimmy Hsia, Nanyang Technological University, Singapore Prof. Aitor Mugarza, Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain		
09:00 - 09:30	Understanding thermal transport in Transition Metal Dichalcogenides: from the monolayer to the bulk. P. Ordejon	Prof. Pablo Ordejon , Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain
09:30 - 10:00	Large-scale production and commercialization of graphene-based solutions for electromagnetic interference shielding applications. J. Rodrigues	Mr. João Rodrigues , Graphenest - Advanced Nanotechnology, Portugal
10:00 - 10:30	Plastic deformation of B19' martensite in NiTi shape memory alloy. P. Sittner , O. Molnarova, X. Bian, O. Tyc, L. Heller, P. Sedlak and H. Seiner	Dr. Petr Sittner , Czech Academy of Sciences, Czech Republic
10:30 - 11:00 Morning Coffee Break - Grande Real Foyer		
Session Chairs: Prof. Robert J Young, University of Manchester, UK Dr. Petr Sittner, Czech Academy of Sciences, Czech Republic Prof. Aitor Mugarza, Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain		
11:00 - 11:30	Overcoming the adhesion paradox and switchability conflict on rough surfaces with shape memory polymers. C. Linghu, H. Gao and K Jimmy Hsia	Prof. K Jimmy Hsia , Nanyang Technological University, Singapore
11:30 - 11:45	Mechanics of Shape-Locking-Governed R2G Adhesion with Shape Memory Polymers. C. Linghu, H. Gao and K. J. Hsia	Mr. Changhong Linghu , Nanyang Technological University, Singapore
11:45 - 12:00	Thermal response of double network hydrogels. L. Hanyková , I. Krakovský, J. Šťastná and J. Labuta	Dr. Lenka Hanyková , Charles University, Czech Rep.
12:00 - 12:15	Influence of the addition of antimicrobial low molecular weight chitosan on the thermal and rheological properties of polybutadiene succinate composites. R. Merijs-Meri , J. Zicans, T. Ivanova, M. Žiganova, R. Berzina and J. Bitenieks	Prof. Remo Merijs-Meri , Riga Technical University, Latvia
12:15 - 12:30	Ceria-Based Nanocomposites for Catalysis by Magnetic Heating. D. Makovec , N. Križaj Kosi Ž. Trošt, J. Tržan, M. Grilc and S. Gyergyek	Prof. Darko Makovec , Jožef Stefan Institute, Slovenia
12:00 - 14:00 Lunch Break – Real Restaurant		
Group Photo at 13:45		
Smart Materials and Surfaces / Sensors 2023 Session II. B: New Materials for sensors and actuators: Sensing the Future with New Materials		
Session Chairs: Prof. Riccarda Antiochia, University of Rome "La Sapienza", Italy Prof. Maria Vittoria Diamanti, Politecnico di Milano, Italy		
14:00 - 14:30	Tactile Perception of Virtual Surfaces generated by Piezoelectric Actuators. C. Bertheaux, I. A. Ivan, D. Ruiz-Lopez, L. Quiblier, J. C. Roux and R. Fortunier	Prof. Roland Fortunier , Ecole Centrale Lyon, France
14:30 - 14:45	Metallic nanoparticles-based nanomaterial as a non-enzymatic sensor. M. Kuznowicz , A. Jędrzak, T. Rębiś and T. Jesionowski	Ms. Maria Kuznowicz , Poznan University of Technology, Poland
14:45 - 15:00	Novel Gas Phase Route Towards Patterned Deposition of Pt/Al reactive multilayers. N. A. Isaac , L. Schlag, J. Reiprich, A. Islam, A. K. Soydan, J. Pezoldt and H. O. Jacobs	Mr. Nishchay Angel Isaac , TU Ilmenau, Germany

15:00 - 15:15	Transparent thin films for use as position sensitive photodetector. P. Petkov , V. Zhelev, P. Banchева-Koleva and T. Petkova	Prof. Plamen Petkov , University of Chemical Technology and Metallurgy- Sofia, Bulgaria
15:15 - 15:30	Layer by layer method used to investigate correlation between rigidity of matrix and sensitivity of sensors device. T. Chudziak , P. Samorì and A. Ciesielski	Mr. Tomasz Chudziak , University of Adam Mickiewicz, Poland
15:30 - 15:45	Gas sensitivity analysis of the gas-triggered resistive switch – gasistor. M. Patrnčíak , M. Vidiš, M. Moško, A. Plecenik, L. Satrapinskyy, T. Roch, P. Ďurina and T. Plecenik	Mr. Michal Patrnčíak , Comenius University Bratislava, Slovakia
15:45 - 16:00	Development of optical microsensors based on Surface Plasmon Resonance for gas measurement in atmosphere. J. Brunet , H. Bruhier, T. Gueye, S. Rajab Pacha, P. Giraud, A. Ndiaye, C. Varenne, A. Pauly, I. Verrier and Y. Jourlin	Dr. Jerome Brunet , University of Clermont Auvergne, France
16:00 - 16:30 Afternoon Coffee Break - Grande Real Foyer		
SMS / NanoMed / Sensors 2023 Joint Session II. C: Biosensors and sensors for medical applications		
Session Chairs: Prof. Roland Fortunier , Ecole Centrale Lyon, France Prof. Plamen Petkov , University of Chemical Technology and Metallurgy- Sofia, Bulgaria Prof. Pankaj Vadgama , Queen Mary University of London, UK		
16:30 - 17:00	A disposable immunosensor for detection of salivary MMP-8 as biomarker of periodontitis. R. Antiochia	Prof. Riccarda Antiochia , University of Rome "La Sapienza", Italy
17:00 - 17:15	β -cyclodextrins grafted on magnetite@polynorepinephrine as a potential long-term mobile glucose biosensor. A. Jędrzak , M. Kuznowicz and T. Jesionowski	Mr. Artur Jędrzak , Poznań University of Technology, Poland
17:15 - 17:30	Assessing SAR Levels in Microwave Sensors for Breast Cancer Detection: Ensuring Patient Safety. A. Rangel-Trejo , A. Quiceno-Villa and L. Fakri-Bouchet	Mr. Abel Rangel Trejo , University of Claude Bernard Lyon 1, France
17:30 - 17:45	In-Situ Investigation of Cellular Level Biomarkers Using Atomic Force Microscopy (AFM) Based Nano Robot. Y. Xue, Y. Wang, X. Liu and N. Xi	Dr. Ning Xi , The University of Hong Kong- Hong Kong, China
17:45 - 18:00	Pioneering Disease Diagnosis Platform: Leveraging Differential Dynamic Microscopy. S. Salimi , P-L. Latreille, M. Le Goas, D-C. Boffito, J. Arlt, V. Martinez and X. Banquy	Mr. Sina Salimi , University of Montréal, Canada
18:00 - 18:15	Controlled Design of Aptasensing Platforms for Food Contaminants Detection through Aryl Diazonium Electrochemistry. A. M. Onaş, C.V. Florea, A.M. Pandele, M. Raicopol and L. Pilan	Dr. Luisa Pilan , University Politehnica of Bucharest, Romania
18:15 - 18:30	Detection of highly diluted single-nucleotide polymorphism in healthy DNA using graphene field-effect transistors T. Domingues , J. Borne, B. Costa, M. Martins and P. Alpuim	Mrs. Telma Domingues , International Iberian Nanotechnology Laboratory, Portugal

Conference Dinner
Conference venue hotel
26 Oct. 2026 from 19:30

Thu. 26 October 2023		
NanoMed / Sensors joint Session II. A: Bioinspired, Biomimetic bioactive biomaterials Intelligent drug delivery and release system		
Conference Room Sala Santa Eulália		
Session Chairs: Prof. Redouane Borsali, Univ Grenoble Alpes, France Prof. Antonio Gloria, University of Naples Federico II, Italy		
09:00 - 09:30	Nanotechnology-based assessment of Flavivirus assembly and its inhibition. N.C. Santos	Prof. Nuno C. Santos, iMM Lisboa, Portugal
09:30 - 10:00	Nanocrystals as novel nanomedicines in cancer. N. Mignet, B. Martin, P. Ma, H. Dhotel, B. Saubamea, J. Seguin and Y. Corvis	Prof. Nathalie Mignet, University Paris Cité, UTCBS, CNRS, INSERM, France
10:00 - 10:15	Hybrid PEM/wax coatings for surface biofunctionalization. T. Andreeva and R. Krastev	Dr. Tonya Andreeva, Reutlingen University, Germany
10:30 - 11:00 Morning Coffee Break - Grande Real Foyer		
11:00 - 11:30	Next-Generation Ultrasensitive Sensors Using Antibody-Mimetic Protein Scaffolds. L. Movileanu	Prof. Liviu Movileanu, Syracuse University, USA
11:30 - 11:45	Fast emitting scintillating nanocomposites for high resolution ToF-PET imaging. M. Orfano, M. Rurali, A. Monguzzi and I. Villa	Dr. Irene Villa, University of Milano-Bicocca, Italy
11:45 - 12:00	Multifunctional Nanotubes for X-ray activated photodynamic therapy (X-PDT). V. Secchi, I. Villa, C. Villa, Y. Torrente, A. Vedda and A. Monguzzi	Dr. Valeria Secchi, University of Milano-Bicocca, Italy
12:00 - 14:00 Lunch Break – Real Restaurant		
Group Photo at 13:45		
SMS / NanoMed / Sensors 2023 joint Session II. B: Biomaterials / NanoBioMaterials / Bioimaging / Biosensors		
Session Chairs: Prof. Liviu Movileanu, Syracuse University, USA Prof. Charafeddine Jama, Centrale Lille Institute, France		
14:00 - 14:30	New pharmaceutical formulations containing two-dimensional nanomaterials for phototherapy. A.M. Pinto	Dr. Artur M. Pinto, LEPABE- University of Porto, Portugal
14:30 - 14:45	Synthesis of stable colloidal suspensions of non-superparamagnetic nanoparticles for magneto-rheology bio applications. J. M. Costa, G. F. Resende, Y. Gu, J. N. M. Silveiras, M. R. Lagarto, F. L. Sousa,V. M. Gaspar, J. F. Mano, A. Millán, J.-L. Garcia-Palacios, A. Namai, M. Yoshikiyo, S. Ohkoshi and N. J. O. Silva	Mr. João Costa, University of Aveiro, Portugal
14:45 - 15:00	Natural Receptors for Electrochemical Biosensors Assembly: The Case of IL-5R α . D. J. Pérez, E. B. Patiño and J. Orozco	Mr. David J. Pérez Cardona, University of Antioquia, Colombia
15:00 - 15:15	Graphene Oxide: an efficacious Challenge for the Chronic Wounds management. S. Di Lodovico, F. Diban, P. Di Fermo, S. D’Arcangelo, S. D’Ercole, L. Cellini and M. Di Giulio	Dr. Silvia Di Lodovico, University “G. d’Annunzio” Chieti-Pescara, Italy.
15:15 - 15:30	Effect of biocompatibility in alginate 3D Scaffolds using calcium pyrophosphates (β -CPP) ceramics. G. C. Pinto, R. D. Piazza, I. P. M. Soares, A. F. Cunha, C. Anselmi, M. B. Oliveira, C. A. S. Costa, A. C. Guastaldi, N. J. O. e Silva	Dr. Gabriel Cardoso Pinto, University of Aveiro, Portugal
16:00 - 16:30 Afternoon Coffee Break - Grande Real Foyer		

Session Chairs: Prof. Liviu Movileanu, Syracuse University, USA Prof. Charafeddine Jama, Centrale Lille Institute, France		
16:30 - 17:00	Bioinspired Design for Additive Manufacturing Towards the Development of Innovative Devices for Biomedical and Industrial Applications. A. Gloria, I. Papallo, M. Domingos, N. Alves and M. Martorelli	Prof. Antonio Gloria, University of Naples Federico II, Italy
17:00 - 17:15	Elimination of pathogenic E. coli bacteria using bioinspired plasmonic optical metasurfaces. A; Smith, M. Mazloumi, L; Karperien, C; Escobedo and R.G. Sabat	Prof. Ribal Georges Sabat, Royal Military College of Canada, Canada
17:15 - 17:30	Interaction of Microparticles of Different Rigidities with Serum and Plasma Proteins. E. Gerasimovich, G. Nifontova, I. Nabiev and A. Sukhanova	Ms. Evgeniia Gerasimovich, Life Improvement by Future Technologies Center, Russia

Conference Dinner
 Conference venue hotel
 26 Oct. 2023 from 19:30

Thu 26 Oct. 2023

NanoMed 2023 Session II. C:
Nanomaterials for Biomedical / Tissue engineering, drug, and gene delivery

Conference Room Sala Algarve

Session Chairs:
Prof. Nuno C. Santos, IMM Lisboa, Portugal
Prof. Nathalie Mignet, University Paris Cité, France

14:00 - 14:30	Chameleon Nanocarriers for Delivery of Therapeutic RNA. E. Wagner	Prof. Ernst Wagner , Ludwig-Maximilians-University (LMU) München, Germany
14:30 – 14:45	Self-assembly of Cyanidin 3-O-glucoside and negative charged polysaccharides. A structural study. P. Di Gianvincenzo , N. Chotechuang, D. Padro, M. G. Ortore and S. E. Moya	Dr. Paolo Di Gianvincenzo , CIC biomaGUNE, Spain
14:45 - 15:00	Development of Stable and Biocompatible Super-paramagnetic Iron Oxide Nanoparticles (SPIONs) and Study of their Spatial Structuration upon the Application of an External Magnetic Field (MF). J. Mistral , P. Nunes De Oliveira, G. Sudre, A. Serghei, O. Chapet, C. Ladavière and L. David	Mr. Jules Mistral , Université Claude Bernard Lyon, France
15:00 - 15:15	nanoTARG: a nanotechnological platform for the management of ZIP4-positive tumours. P. Perez Schmidt and P. Rivera Gil	Dr. Patricia Perez Schmidt , Pompeu Fabra University, Spain
15:15 - 15;30	Designing an optical nanosensor to non-invasively monitor tumor metastasis. T. Zhou and P. Rivera Gil	Ms. Ting Zhou , Pompeu Fabra University, Spain
15:30 - 15:45	Nanovesicles tested on human skin explants preserved in an innovative fluid dynamic system. A. Galvan , M. Malatesta, E. Esposito and L. Calderan	Dr. Andrea Galvan , University of Verona, Italy
15:45 - 16:00	Polymer carrier of cytotoxic drugs with P-gp-overcoming capacity in the treatment of chemoresistant tumors. M. Sirova , M. Kana, A. Braunova, M. Frejkova, T. Etrych, B. Rihova and M. Kovar	Dr. Milada Sirova , Institute of Microbiology of the Czech Academy of Sciences, Czech Rep.
16:00 - 16:30 Afternoon Coffee Break - Grande Real Foyer		
Session Chairs: Prof. Nuno C. Santos, iMM Lisboa, Portugal Prof. Nathalie Mignet, University Paris Cité, France Dr. Irene Villa, University of Milano-Bicocca, Italy		
16:30 - 16:45	HPMA copolymer conjugates bearing novel STAT3 inhibitor and doxorubicin covalently linked through pH-sensitive bond possess in combination significant antitumor activity in vivo. M. Kovar , V. Subr, K. Behalova, M. Studenovsky, D. Starenko, J. Kovarova, T. Etrych and L. Kostka	Dr. Marek Kovar , Institute of Microbiology of the Czech Academy of Sciences, Czech Rep.
16:45 - 17:00	Synthesis of cRGD functionalized nanosystems for tumor site-specific delivery of anticancer agents. G. Bisbano, D. Rubes, M. Zupi, E. Bari, M. Paolillo, F. Doria, M. Filice, M. Terreni and M. Serra	Dr. Massimo Serra , University of Pavia, Italy
17:00 - 17:15	Design and optimization of nano-formulations for a novel colchicine derivative. M. Rubicondo , C.Mattu and J. A. Tuszyński	Mrs. Marialucia Rubicondo , Polytechnic Torino, Italy
17:15 - 17:30	Engineering Efficient Car-T Cells via Electroactive Nanoinjection. A-R Shokouhi, Y. Chen, H. Zhe Yoh, J. Brenker, T. Alan, T. Murayama, K. Suu, Y. Morikawa, N.H. Voelcker and R. Elnathan	Dr. Roey Elnathan , Deakin University, Australia
17:30 - 17:45	Platinum nanoparticles synthesized with lumichrome for UV-light cancer therapy. R. Rey-Méndez , N. González-Ballesteros, M. C. Rodríguez-Argüelles, S. Pinelli, P. Mozzoni, F. Rossi, F. Fabbri and F. Bigi	Ms. Raquel Rey-Mendez , University of Vigo, Spain
17:45 -18:00	Efficient and Rapid Production of Bio-inspired Nanoparticles Derived from Bombyx mori Silkworm for Enhanced Breast Cancer Treatment. M. Muhamad Hawari and M. Munitta	Mr. Muhamad Hawari Mansor , University of Sheffield, UK

18:00 - 18:15	Microfluidic-mediated ZIF-Silk-Polydopamine Core-Shell Nanoparticles for Delivery of Zinc Ions and Curcumin in Breast Cancer Therapy. Z. Gao , M. Hawari Mansor, N. Winder, S. Demiral, J. MacInnes, X. Zhao and M. Muthana	Mr Zijian Gao , University of Sheffield, UK
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Conference Dinner
Conference venue hotel
26 Oct. 2026 from 19:30

Fri. 27 Oct. 2023		
SMS / EGF 2022 Session III.A: Applications for energy and environment		
Conference room Sala Santa Eulália		
Session Chairs: Prof. Sandra Pulcinelli, UNESP, São Paulo State University, Brazil. Prof. Joseph Kirui, University of Venda, South Africa		
09:00 - 09:30	Environmental Applications of Anodic TiO2 Films for Water and Air Purification. M.V. Diamanti, U. Bellè and M.P Pedferri	Prof. Maria Vittoria Diamanti, Politecnico di Milano, Italy
09:30 - 09:45	Grafysorber® Technology Innovative solution of oil recovery by emulsion treatment. M. Vlaicu, M. V. Nae, B. Schlager, R. Popescu,V. Giugliano and V.Dragoman	Mrs. Mihaela Vlaicu, OMV Petrom, Romania
09:45 - 10:00	Thermal analysis of magnesium hydride. R. Skvorčinskienė, L. Vorotinskienė, N. Striūgas, M. Urbonavičius and K. Zakarauskas	Dr. Raminta Skvorčinskienė, Lithuanian energy institute, Lithuania
10:00 - 10:30	Morning Coffee Break - Grande Real Foyer	
10:30 - 10:45	Elucidating the Trajectory of the Charge Transfer Mechanism and Recombination Process of Hybrid Perovskite Solar Cells. J. K. Kirui, S. A. Olaleru, L. Jhamba, D. Wamwangi, K. Roro, A. Shnier, R. Erasmus and B. Mwakikunga	Prof. Joseph Kirui, University of Venda, South Africa
10:45 - 11:00	A Novel MgFe2O4/Bi4O5Br2 Heterojunction Photocatalyst with Enhanced Photocatalytic Activity for Degradation of Bisphenol A and Reduction of Cr(VI) under Visible light. T. Luangwanta, R. Prathumpitak, T. Yungyongsakul and S. Kaowphong	Mr. Tawanwit Luangwanta, Chiang Mai University, Thailand
12:00 - 14:00	Lunch Break- Real Restaurant	
Trip to Algarve Area (Lagos / Cape St. Vincent / Sagres) Conference venue hotel 27 October 2023 from 13:30 – 19:00 Complementary – Limited Seats		

Fri. 27 Oct. 2023		
NanoMed / Sensors 2023 Session III.B		
Conference room Sala Algarve		
Session Chairs: Prof. Simon M. Humphrey, The University of Texas at Austin, USA Prof. Liviu Movileanu, Syracuse University, USA		
09:30 - 09:45	DNA Conformational Changes Induced by Its Interaction with Platinum Complexes in Solution. Comparison of Platinum, Ruthenium and Cadmium compounds. N. Kasyanenko, V. Bakulev and V. Demidov	Prof. Nina Kasyanenko, Saint Petersburg State University, Russia
09:45 - 10:00	Printed Sensors, Biosensors and Actuators: Current and future trends for Point-of-Need applications. A. Ben Aissa and A. Moya	Dr. Alejandra Ben-Aissa Soler, Eurecat, Spain
10:00 - 10:30	Morning Coffee Break - Grande Real Foyer	
10:30 - 11:00	Industrial Measurements, Communications and Protocols. J. D. Pereira	Prof. José Dias Pereira, Telecommunication Institute Lisboa, Portugal
11:00 - 11:15	Electrochemical Impedance Spectroscopy as a tool for discovering antimicrobial agents from environmental sources. E. Rosqvist, P. San-Martin-Galindo, J.Y. Kauhaluoma and J. Peltonen	Dr. Emil Rosqvist, Åbo Akademi University, Finland
11:15 - 11:30	Synergistic Influence of Static Magnetic Field and Magnetite-nanoparticles on a Microbial Fuel Cell in Anaerobic Digestion. N.I. Madondo, S. Rathilal, B.F. Bakare and E.K. Tetteh	Dr. Nhlanganiso I. Madondo, Durban University of Technology, South Africa
11:30 - 11:45	A Laser Modulation-based Fiber-Optic Fabry-Perot Interferometer for High Precision Pulse Wave Monitoring. P. Samartkit, S. Pullteap, H. C. Seat and M. Cattoen	Mr. Piyawat Samartkit, Silpakorn University, Thailand
12:00 - 14:00	Lunch Break – Real Restaurant	
Trip to Algarve Area (Lagos / Cape St. Vincent / Sagres) Conference venue hotel 13:30 – 19:00 Complementary – Limited Seats		

N.B:

For the Oral Presentation:

Duration of each talk type (including 2 to 3 minutes for Questions/Answers):

- We do not impose a template for the oral presentations,
- Oral presentation: 15 minutes,
- Keynote talk: 30 minutes.

For the Poster:

- Poster dimensions must be **100cm high X 80cm wide** maximum.
- We do not impose a template for the poster content.

N.	Poster Title	Author, Affiliation, Country
1.	Laser-Induced Graphene on Sodium Alginate. T. Vičentić , I. Greco, D. Bajuk-Bogdanović, K. Radulović, I. Pašti, C. S. Iorio and M. Spasenović	Ms. Teodora Vicentic , Institute of Chemistry, Technology and Metallurgy, Serbia
2.	Wettability characteristics of Al-6061 alloy surface generated using high frequency Longitudinal Vibration assisted end-milling. T. Jo Ko, S. Ali, R. Kurniawan and M. Xu	Prof. Tae Jo Ko , Yeungnam University, Rep. of Korea
3.	Multifunctional Microstructured Surfaces using Microcontact Printing of Microgels. I.E. Litzen , A. Töpel, A. Sechi and A. Pich	Ms. Inga Litzen , RWTH Aachen University, Germany
4.	Optical and mechanical properties assessment for the main sol-gel ZrO ₂ coatings in CSP plants. M. Botejara-Antúnez, A. Díaz-Parralejo , A. Macías-García, D. Maya-Retamar and J. García-Sanz-Calcedo	Dr. Antonio Díaz Parralejo , University of Extremadura, Spain
5.	CrSi-based carbo-nitrides protective coatings for industrial wood-working applications. L.R. Constantin , A.C. Parau, M. Dinu, I. Pana, C. Vitelaru and Alina Vladescu (Dragomir)	Dr. Lidia Ruxandra Constantin , National Institute of Research and Development for Optoelectronics - INOE 2000, Romania
6.	Contribution of Nanoparticles of Mixed Oxides Derived from LDH in the Crystallization of Cement Phases During Hydration. A.A. Almeida, C.C. Dos Santos, V. Briois, S.H. Pulcinelli and C.V. Santilli	Prof. Celso Santilli , UNESP, São Paulo State University, Brazil
7.	The Relevance of Iron Distribution in Smectite Clays on the Improvement of the Thermostability of PMMA-Clay Nanocomposites. C.R. Ferreira, C.V. Santilli, V. Briois and S.H. Pulcinelli	Prof. Sandra Pulcinelli , UNESP, São Paulo State University, Brazil
8.	On the mechanical and rheological properties of polybutadiene succinate based nanocomposites with nanoclay. J. Zicans , R. Merijs-Meri, T. Ivanova, I. Bockovs and J. Bitenieks	Dr. Janis Zicans , Riga Technical University, Latvia
9.	Real-time observation of molecular stacking using Low-Energy Electron Microscopy. P. Procházka and J. Čechal	Dr. Pavel Procházka , Brno University of Technology, Czech Rep.
10.	Investigation of atomically thin 2D indium intercalated under epitaxial graphene on SiC using scanning tunneling microscopy. V. D. Pham , C. Dong and J. A. Robinson	Dr. Van Dong Pham , Paul Drude Institute- Berlin, Germany
11.	Electrochemical Sensor for Benserazide: Molecularly Imprinted Polymer on a Paper-based Platform. I. Seguro , J. G. Pacheco and C. Delerue-Matos	Mrs. Isabel Seguro , REQUIMTE/ LAQV - Porto, Portugal
12.	Molecularly imprinted polymer-based electrochemical sensor for simple and fast analysis of tetrodotoxin. P. Rocha , P. Rebelo, J.G. Pacheco, D. Geraldo, F. Bento, J.M. Leão, C. Delerue-Matos and H.P.A. Nouws	Mr. José Pedro Rocha , REQUIMTE/ LAQV - Porto, Portugal
13.	An electronic nose based on CNTs functionalized with zinc phthalocyanine for wine aging detection. S. Freddi and L. Sangaletti	Dr. Sonia Freddi , Cattolica del Sacro Cuore University, Italy
14.	Impedimetric FIA enzyme inhibition-based biosensor system for determination of heavy metal ions in water. V. M. Pyeshkova , V.A. Bakhmat, O. O. Soldatkin, S. Krishnamurthy and S. V. Dzyadevych	Dr. Viktoriya Pyeshkova , The open University, UK
15.	Development of biosensors for phenol compounds utilizing Langmuir and Langmuir-Blodgett nano-organized films containing laccase. A.C. Machado and L. Caseli	Mr. André Campos Machado , Federal University de São Paulo, Brazil
16.	Flexible copper nanowire-based electrodes: Optical and mechanical properties for soft electronics. NW Hoy, LS Mpeta and PS Mbule	Prof. Pontsho Mbule , University of South Africa-Johannesburg, South Africa

17.	Degradation Analysis of Organic Solar Cells. D. Valiente , F. Rodríguez-Mas, A. Hortal, A. Ruiz, J. C. Ferrer, J. L. Alonso, P. Corral and S. Fernández de Ávila	Dr. David Valiente Garcia , Miguel Hernández University, Spain
18.	Improvements on Carbon Based Porous Silicon Supercapacitor Through Electrochemical Deposition of Cobalt Hexacyanoferrate Nanocubes. I-N. Bratosin , M.C. Stoian, G. Craciun, N. Djurelov, M. Kus-ko and A. Radoi	Mrs. Irina Bratosin , National Institute for Research and Development in Microtechnologies, Romania
19.	Charge injection layers from carboxylic acid molecules. V. Stará , J. Planer, P. Procházka, T. Skála, M. Blatnik and J. Čechal	Ms. Veronika Stará , Brno University of Technology, Czech Rep.
20.	Conductimetric microsensors integrating phthalocyanine nanolayers: high-performance sensing devices for the measurement of NO ₂ at ppb level in atmosphere. J. Brunet , T. Gueye, A. Ndiaye, A. Pauly and C. Varenne	Dr. Jerome Brunet , University of Clermont Auvergne, France
21.	(Bio)Chemical Stretchable Sensors in Wearable Health Monitors. M. Moreno , M. Alique, A. BenAissa and A. Moya	Mrs. Martina Moreno Fina , Eurecat, Centre Tecnològic de Catalunya, Spain
22.	Preparation of Water-Soluble Microspicule Composition using Hyaluronic acid. C. Woo Lee	Prof. Chul Woo Lee , Hanbat National University, Daejeon, Rep. of Korea
23.	Antibacterial properties of Polytetrafluorethylene Nanotextile with Ag Nanoparticles Induced By High-Energy Excimer Laser. B. Frýdlová , N. S. Kasálková, D. Fajstavr, Z. Kolská, V. Švorčík and P. Slepíčka	Ms. Bara Frýdlová , The University of Chemistry and Technology Prague, Czech Rep.
24.	Antibacterial and Photothermal Properties of Silver Nanoparticles: Paving the Way for Targeted Therapeutic Strategies. L. Hochvaldová , L. Válková, L. Kvítek, R. Večeřová, M. Kolář and A. Panáček	Ms. Lucie Hochvaldová , Palacky University- Olomouc, Czech Rep.
25.	In vitro characterization of electroactive scaffolds for tissue engineering. O. Buchar Klinovská , S. Müllerová and M. Hubálek Kalbáčová	Ms. Olga Buchar Klinovská , Charles University, Czech Rep.
26.	Tribo-corrosion Evaluation of Electron Beam Melting Ti6Al4V-ELI for Biomedical Applications. M.D.M. das Neves , L.C.E. Silva, R.A. Antunes, F.P. da Água, J.O. da Paz and E.F. Pieretti	Prof. Maurício das Neves , IPEN, Brazil
27.	Nano-texturing and high antibody adsorption of silicon nanoparticle surfaces for clinical application to enzyme-antibody methods. M. Endra Swe , T. Iwamoto, Y. Manome and K. Sato	Ms. Myat Endra Swe , Tokyo Denki University, Japan
28.	Nanostructured system based on hydroxyapatite and curcumin: a promising candidate for osteosarcoma therapy. J. P. N. Marinho and E. M. B. Sousa	Dr. Edesia M. Barros de Sousa , Development Centre of Nuclear Technology, Brazil
29.	Extracellular vesicles as nanocarriers biocoating for enhanced drug delivery in stroke. A. Oris , A. Bronckaers, A. Ethirajan and I. Nelissen	Ms. Anouk Oris , University of Hasselt, Belgium
30.	Star polymers as miR146a delivery system to regulate cardiomyocyte apoptosis after myocardial infarction. Ł. Przysiecka , K. Fiedorowicz, K. Szczeniak, B. Grześkowiak, M. Bigaj-Józefowska and G. Nowaczyk	Dr. Łucja Przysiecka , Adam Mickiewicz University Poznań, Poland
31.	Lipid liquid crystalline nanoparticles as nanocarriers of miR let7g supporting cardiomyocyte maturation. K. Fiedorowicz , Ł. Przysiecka, K. Gębicka, D. Flak and G. Nowaczyk	Dr. Katarzyna Fiedorowicz , Adam Mickiewicz University Poznań, Poland
32.	Nanoembedded Microparticles as an Innovative Drug Delivery System of a Therapeutic Peptide for the Treatment of Heart Failure. J. Modica , E. Quarta, L. Degli Esposti, A. Alogna, V. Di Mauro, P. Colombo, C. De Luca, M. Iafisco, H. Post and D. Catalucci	Dr. Jessica Modica , CNR-IRGB- Milan, Italy
33.	NaYF ₄ :Yb ³⁺ /Er ³⁺ upconverting nanoparticles for imaging and therapy. P. Matouš , V. Herynek, J. Pankrác, D. Mareková, K. Turnovcová, V. Patsula, D. Horák and L. Šefc	Mr. Petr Matous , First Faculty of Medicine, Charles University, Czech Rep.
34.	Antitumor activity of HPMA copolymer conjugates bearing docetaxel and platinum-based drug for the treatment of head and neck cancer. K. Behalova , D. Starenko, L. Kostka, M. Subr, T. Etrych and M. Kovar	Ms. Katerina Behalova , Institute of Microbiology of the Czech Academy of Sciences, Czech Rep.

35.	Inhibition of P-gp mediated multidrug resistance and STAT3 signaling pathway by polymeric conjugates bearing HIV protease inhibitor derivatives. D. Starenko , K. Behalova, L. Kostka, V. Subr, T. Etrych and M. Kovar	Mr. Daniil Starenko , Institute of Microbiology of the Czech Academy of Sciences, Czech Rep.
36.	Multiphoton imaging of melanoma 3D models and photothermal therapy in chemoresistant melanoma with plasmonic gold nanocapsules. Q. She , P. Zamora-Perez, C. Xiao, M. Sanles-Sobrido, M. Rovira-Esteva, J. Conesa, D. Jaque, H D. Santos, A. Martin, M. Carmen Iglesias-de la Cruz, N. Fernández and P. Rivera-Gil	Ms. Qiutian She , Pompeu Fabra University, Spain
37.	A new 7-(diethylamino)coumarin and 4-(diethylamino)phenol appended unsymmetrical thiocarbohydrazone: detection of moisture in organic sol-vent and sequential turn-on detection of Cu ²⁺ ions. K. Santhiya , B. Murugesapandian and J.V. Gražulevičius	Dr. Kuppusamy Santhiya , Kaunas University of Technology, Lithuania
38.	Design and Evaluation of an Energy-autonomous Ultra-thin Wireless Sensor Node for Condition Monitoring of Wind Turbine Blades. T. Schaechtle , C. Heim, H. Köhler, K. Mader, A. Binder, G. Bruckner, L. M. Reindl and S. J. Rupitsch	Mr. Thomas Schaechtle , University of Freiburg, Germany
39.	How to deal with low cost air quality sensors? – experiences from the project “Do you know what you breathe?” – educational and information campaign for cleaner air LIFE-MAPPINGAIR/PL. T. Sawiński , A. Drzeniecka-Osiadacz, M. Korzystka-Muskała, M. Kowalczyk and P. Modzel	Dr. Tymoteusz Sawiński , University of Wrocław, Poland
40.	Structure and bioactive properties of titanium dioxide surface layers produced on NiTi shape memory alloy in low temperature plasma. J. Witkowska , T. Borowski, K. Wunsch, J. Morgiel, J. Sobiecki, T. Wierzchoń	Dr. Justyna Witkowska , Warsaw University of Technology, Poland
41.	<i>In Vitro</i> Superparamagnetic Hyperthermia Employing Magnetite Gamma-Cyclodextrin Nanobioconjugates for Squamous Skin Carcinoma Therapy C. Caizer , C.G. Watz, I.S. Caizer-Gaitan, C.A. Dehelean, G. Dubalaru and C.M. Soica	Prof. Costica Caizer , West University of Timisoara, Romania .
42.	Determinants and consequences of PARG inhibitor sensitivity in ovarian cancer; a proteomics approach A. Almami , L. Gethings, P. Townsend and S. Taylor	Ms. Amal Almami , University of Manchester, UK

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