



European Materials Research Society

2025 Spring Meeting

May 26 – 30 | Strasbourg Convention Centre

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SYMPOSIUM F

Synthesis and characterization of functional nanocomposite materials

Oral sessions : CASSIN – GROUND FLOOR

Poster sessions : ETOILE – FIRST FLOOR

Symposium Organizers:

Aurora RIZZO, University of Salento – CNR NANOTEC, Institute of Nanotechnology, Italy

Ermelinda M. S. MACOAS, University of Lisbon, Instituto Superior Técnico (IST-ID), Portugal

Raghvendra Singh YADAV (Main organizer), Tomas Bata University in Zlin, Centre of Polymer Systems, Czech Republic

Tayebeh AMERI, Kiel University, Germany

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Monday May 26

F01 Nanocomposites and Catalytic Properties

Chairperson(s): KISAILUS David

YADAV Raghvendra singh

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08:30	403	Nanocomposite Aerogels as 3-Dimensional Photocatalysts NIEDERBERGER Markus (Invited)
09:00	635	AgBi52/2D-BiOBr inks for photoelectrocatalytic applications DOMENICI Sara
09:15	985	Organic-inorganic hybrid metal hydroxide nanoparticle assembled films as electrocatalysts TARUTANI Naoki
09:30	1408	Engineering iron oxide/N-doped reduced graphene oxide composites for efficient electrocatalysts towards oxygen reduction and evolution reactions MOYSEOWICZ Adam
09:45	2190	Engineered Ag NPs–based nanocomposites for antimicrobial applications DE PASQUALE Ilaria

Monday May 26

F02 Multifunctional Nanocomposites-I

Chairperson(s): KOMATSU Naoki

MACOAS Ermelinda

[View session abstracts](#)

10:30	2636	Convergent Evolution to Engineering: Blueprints for Multifunctional Advanced Materials KISAILUS David (Invited)
11:00	722	Direct Laser Writing of Photonic Nanocomposites XIE Zengchun
11:15	1267	Metal-Organic Framework Glass Composites for Sustainable Water Solutions MOLLICK Samraj
11:30	2654	New Insights into Optoelectronic Features of multifunctional Eu-MOF for Advanced Optical and Biomedical Applications DWIVEDI Arpita
11:45	1809	Anti-wetting and Photodegradable Metal oxide Nanoparticle Based Coating for Protecting Stones in Cultural Heritage Applications KUMAR Pankaj

Monday May 26

F03 Multifunctional Nanocomposites-II

Chairperson(s): AMERI Tayebbeh

NIEDERBERGER Markus

[View session abstracts](#)

13:45	885	Synthesis, Functionalization, Characterization, and Application of Nanoparticle-Based Medical Nanodevices KOMATSU Naoki (Invited)
14:15	374	Ionic colloidal crystals composed of long linear polyelectrolytes and small spherical nanoparticles. CARN Florent
14:30	2702	Synthesis and Characterisation of Ethylene Vinyl Acetate (EVA)/Fe ₃ O ₄ nanocomposite magnetic membrane for antibody stabilization Ashok Jeshurun
14:45	2708	Bioprocessing-inspired confined synthesis of functionally inorganic materials PING Hang
15:00	2804	Nanocomposites and Nanoscale Structural-Properties for More Stable Perovskite Solar Cells CHEN Zhuoying
15:15	1679	Quality of LiNbO ₃ thin films deposited epitaxially by Chemical Beam Vapour Deposition on sapphire substrates with different orientations RANI Rashmi
15:30	1035	3D Graphene-based adsorbents: Synthesis, and Spectroscopic Analysis for Oil Field Applications PARIDA Manas Ranjan
15:45	1278	A novel agile route towards Graphene like Graphite Carbon Structures CONNOR Paul

Monday May 26

FP01 Poster Session

[View session abstracts](#)

16:30	01_1045	Composite of Anatase and Porous Silicon Formed by ALD for Purification Applications TURDALIEV Temur
16:30	02_1100	Plasmon-Molecule Interaction-Enabled Nanocomposite for Advanced Non-Contact Triboelectric Nanogenerators HEMANT Hemant
16:30	03_1129	Making the Invisible Visible with new NIR Emissive Dyes Incorporated in Hybrid Silica Nanoparticles for Fluorescence Image Guided Surgery MACOAS Ermelinda
16:30	04_1138	Fabrication of SERS-Based Substrates for the Detection of Pathogens NAQVI Tania
16:30	05_1198	In-situ Correlative Analysis of Nanoparticles and Nanostructures by combination of SEM & AFM SCHWALB Chris

16:30	06_123	Sustainable methods for producing chitin and chitosan from biomass for biomedical applications THAMER Issam	16:30	24_1595	Attrition-Resistant Fe-Based Catalysts for Olefin Production via RWGS and Fischer-Tropsch Synthesis YANG Seung-Min
16:30	07_1241	Well defined synthesis and characterization of complex nano shapes ZHANG Wei	16:30	25_1631	Contact resistances in segregated conductive polymer composites for flexible electronics LAY Makara
16:30	09_1353	Rational design of layered-like metal sulfide/phosphide nanocomposite as efficient electrode for high-performance supercapattery applications MULE Anki Reddy	16:30	26_1656	Chitosan-Silver nanohybrids for the Photodegradation of Organic Dyes DE BONIS Angela
16:30	10_1361	Synaptic characteristics of Bottom-Gated Phototransistors with Indium-Gallium-Zinc-Oxide Active Layers as a function of oxygen partial pressure KIM Boseong	16:30	27_1657	Integration of Lewis acid into chiral layer structure based on nickel-iron oxides for suppression of chlorine evolution during seawater splitting SEVERA Kamil
16:30	11_1376	Surface Functionalization of Lead halide perovskites quantum dots for Photonic Applications NOVIKOVS Aleksandrs	16:30	28_1667	Alternative route for the preparation of Al ₂ O ₃ , AlON and AlN NPs for optical applications ROJAS Maria
16:30	12_1415	Enhanced Energy Storage Performance Of Nanosheet-Assembled FeS ₂ For Supercapacitor Electrodes NGO Minh Dieu	16:30	29_1738	An innovative process development of high-performance jute fiber guar gum and epoxy-based biocomposite RAJLAKSHMI Rajlakshmi
16:30	13_1431	Plasma and laser assisted synthesis of multimetal oxide nanostructures for energy conversion and storage applications TARASENKA Mikalai	16:30	32_1891	Morphological and Surface Control of Metal-Chalcogenide Nanocrystals through Cation Exchange Yoonbin Shin
16:30	14_1446	Eu,Tb-doped zinc gallate (ZnGa ₂ O ₄) nanocrystals for down-converting photoluminescence KANG Kyungmoon	16:30	33_1892	Reversible Control of Plasmonic Nanoparticle Assembly and Disassembly via Electrochemical Redox Reaction of Surface Ligands HA Taeyong
16:30	15_1460	Formation of lead zirconate titanate thin films by laser ablation in liquid in combination with additional laser modification RADOMTSEU Anton	16:30	34_1894	Sintering Behavior and Properties of Mo-Cu Composites Produced by Spark Plasma Sintering PARK Yu-Gyun
16:30	16_1464	Discovery, Synthesis, and Catalytic Characterization of CuO-based Nanoparticle Heterostructures by an Automated Digital Chemical Platform HERVITZ Daniel	16:30	35_1895	Silica aerogels/Ceramic blanket composites: Advanced thermal insulation for extreme temperature ranges through supercritical drying process LEE Hongyeon
16:30	17_1467	Silk fibroin mediated calcium carbonate microparticle with pH responsiveness for pesticide controlled release ZHANG Sijia	16:30	36_1902	Optimization of Surface-Modified Metal Nanoparticles via Redox Reactions for Enhanced Catalytic Activity KWON Yong Jung
16:30	18_1499	Discovery, Synthesis, and Catalytic Characterization of CuO-based nanoparticle heterostructures by an Automated Digital Chemical Platform HERVITZ Daniel	16:30	37_1911	High Performance Dual MOF-Based Nanofibers for Efficient Adsorption of Ammonia and Acetaldehyde in Mixed Gas Environments BYUN Jiwon
16:30	19_1521	Development of Sideband Electrostatic Force Microscopy for Detecting Nanoscale Carrier Distributions CHEN Yi-Chun	16:30	38_1920	Metal-oxide based Extreme Ultra-violet Resist Synthesis for Nanogap Structure Fabrication of transistor Source/drain Electrode JU Janghyun
16:30	20_1531	Thermal performance enhancement of polyisocyanurate foams through PCM embedding AGRESTI Filippo	16:30	39_1921	Metal-oxide based Extreme Ultra-violet Resist Synthesis for Nanogap Structure Fabrication of transistor Source/drain Electrode JU Janghyun
16:30	21_1535	Characterization of Copper Oxide Nanoparticles and Nanostructured Layers Synthesized via Spark Ablation CHRISTOPOULOS Stavros	16:30	40_1963	Tailoring Förster Resonance Energy Transfer in Copper Nanoclusters-Polymer Nanoparticles Composites through Ligands . Rashi
16:30	22_1564	Synthesis and Characterisation of Novel Fluorescent-Magnetic Cystine Microstructures for Potential Biomedical Applications O’SULLIVAN Caroline	16:30	41_197	Investigation of during heating in vacuum of a double chromium-copper coating deposited onto leucosapphire STETSYUK Tatyana
16:30	23_1586	Nanocatalysts for the synthesis of carbon nanotubes ABDISAIDOV Ilyos			

16:30	42_1987	The Impact of Reagent Ratios on the Morphology and Catalytic Activity of NiO Nanocatalysts Synthesized by the Sol-Gel Method: A DFT-Based Analysis G’ULOMJANOVA Sevaraxon
16:30	43_229	Surface engineering of ZnO NPs with sulfonate molecules as the electron transport layer in quantum dot LEDs Yang Sheng-Hsiung
16:30	44_278	A Dual-Function Electrocatalytic Janus Membrane for CO ₂ Capture and Reduction SADHUJAN Sumesh
16:30	45_29	Photothermal and photodynamic property enhancement in FeS ₂ nanoparticles via surface modification GUZEL KAYA Gulcihan
16:30	46_304	Electrochemical synthesis of chromium silicide nanopowders from halide-oxide melts STETSYUK Tatyana
16:30	47_311	Cracking the code of nanoreinforced adhesives: the roles of particle size and surface chemistry DE VOS John
16:30	48_3212	Excellent mechanical properties in fine-grain Mo-Re alloy fibers HUANG Li
16:30	49_333	Optimizing Optical Properties of Poly(methyl methacrylate)-Zirconia Nanocomposites AMARA Jonathan
16:30	50_336	Engineered Nanocomposites through Embedding of Smaller “Organic Inorganic” Nanoparticles In Thermoplastic Poly[2-Vinylpyridine] Polymer Matrix GUPTA Sanju
16:30	51_383	Bioomposites for Packaging HAMMICHE Dalila
16:30	52_423	Enhancement of Mechanical and Thermal Properties of Inconel 718 through Ti(C,N) and Graphene Oxide Reinforced Hybrid Composites AHMED Bilal Anjum
16:30	53_450	Understanding the impact of doping on the structural, hydrolytic, and thermal stability of HKUST-1 MAHATO Priya
16:30	54_469	Advanced Methods for Carbon Nanotube Growth on Fe Nanostructures Rakhimov Abdulla
16:30	55_489	Synthesis and Characterization of Ytterbium-doped Silicon Nanowires for High-performance Infrared Detection KHALIFA Marouan
16:30	56_547	Low-Temperature Synthesis of CNTs Using Optimized Nanocatalysts ISMATOV Askar
16:30	57_6	Enhancing polymer material properties through force induced chemical reaction BERA Sumit
16:30	58_627	Polymer-aluminum nanocomposites: the relationship between weld line visibility and mechanical properties MORETTI Federica
16:30	59_659	Coprecipitation Synthesis via Multi-metal Precipitants LEE Jae Jin

16:30	60_70	Synthesis and Characterization of Silicon Nanowires Coated with Conducting Polymer thin Film for Application on Organic Dye Photodegradation ATYAQUI Malek
16:30	61_704	Change in the texture of 5CB thin film as a function of thermal cycling and aging SAHOO Ipsita
16:30	62_707	Self-Standing Carbon Nanotube-Nanocellulose Hybrid for Electrochemical Sensing of Antibiotics in Wastewater FERRER PASCUAL Laura
16:30	63_746	Crystalline and Amorphous Zeolitic Imidazolate Framework Nanoparticles for Controlled Drug Release M Mohan Babu
16:30	64_759	Morphologically Functionalized Cu ₂ O Nanocubes for Enhanced Multi-analyte Detection YIM Yeji
16:30	65_765	A Novel CdS Interlayer Strategy for High-Performance AgInZnS/CdS/ZnS Quantum Dots with Improved Stability and Electroluminescence HYO-GEUN Kwon
16:30	66_777	Synthesis and Characterization of White-Light-Emitting InGaN Nanorods on Pyramidal Si Substrates WU Chung Lin
16:30	67_813	Electrical and photoelectric properties of hybrid structures based on Ag-doped porous silicon and reduced graphene oxide film OLENYCH Igor
16:30	68_821	An optimisation procedure for spray pyrolysis grown zinc tin oxide COOLING Ciaran
16:30	69_839	Optically Transparent Titanium Dioxide and Gold Nanotube Heterostructures for Advanced Biomedical Diagnostics KHAN Saiful Islam
16:30	70_894	Preparation, Properties, and Design of Solvent Soluble Polyimide/Boehmite Hybrid Electrophoretic Deposition Materials YAMASHITA Takashi
16:30	71_919	Enhancing perovskite solar cell performance through PbI ₂ in situ passivation using a one-step process: experimental insights and simulations Ben Henda Noura
16:30	72_922	Ultra-selective and Stable Ethylene Detection via Exsolution of Catalytic Ni Nanoparticles in Chemiresistive Gas Sensors JEONG Young Kyu
16:30	73_923	Exsolution of Catalytic Cobalt Nanoparticles for Metal Oxide Chemiresistive Gas Sensors with Highly Selective and Stable Acetone Detection JEONG Young Kyu
16:30	74_925	High Flexible, Cuttable, Origami-enabling Ceramic Nanofiber for Visible Light Responsive Catalysis MOON Geon Dae
16:30	75_926	3D Cardiac Spheroid Biochip via Particle Array Method LEE Jae-Hyeok
16:30	76_949	Au/Ag Core-Shell Nanoparticles for SERS Detection of Biomolecules SIRGEDAITE Gytaute

16:30	77_971	Subharmonic generation in multimetallic nanofluid-filled cavity MADDHESHIYA Ajit Kumar
16:30	78_3225	Exceptionally Stable Polymer Electrolyte Membrane Fuel Cells Enabled by Atomic Layer Deposition of Titania and Platinum SHIM Jung Woo

Tuesday May 27		
F05 Advanced Nanocomposites for Healthcare-I		
Chairperson(s): RIZZO Aurora		
VAHL Alexander		

[View session abstracts](#)

08:30	604	Precision Engineering of Immunocellular States via Intracellular Fever with Nanodiamond Composites WU Yingke (Invited)
09:00	1825	Dual Drug Delivery of Copper Oxide Nanoparticles and Acriflavine Using Electrospun Nanofibers for Synergistic Anticancer Effect WEITZ Iris
09:15	1583	Self-reporting immunostimulating formulation for on-demand cancer therapy with real-time treatment response monitoring GALLO Juan
09:30	201	Biodegradable NIR-II Immune Agonists Enabled by 2D Metallic MoS ₂ Genesheets for Synergistic Photothermal Immunotherapy Jl Ding-Kun
09:45	790	Challenges in the template removal to obtain the molecularly imprinted polymer RATAUTAITE Vilma

Tuesday May 27		
F06 Advanced Nanocomposites for Healthcare-II		
Chairperson(s): WU Yingke		
YADAV Raghvendra singh		

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10:30	1787	Smart hybrid polymer@silica nanocarriers for control release BALEIZAO Carlos (Invited)
11:00	3078	Green antimicrobial bionanocomposites for food preservation PICCA Rosaria Anna
11:15	3112	Quantifying Total and Accessible Numbers of Surface Functionalities on Nanomaterials – First Steps Towards Standardization RESCH-GENGER Ute
11:30	3139	Viscoelastic, thermal transport and chemical properties of Si-epoxy polymer nanocomposites UTEGULOV Zhandos
11:45	1808	Customizing the Gold Oxidation States of Nanoparticles Through Plasma Technology as a Beneficial Strategy to Develop Multi-Sensing Platforms SANS Jordi

Tuesday May 27		
F07 Smart Nanocomposites and its Characteristics		
Chairperson(s): AMERI Tayebbeh		
BALEIZAO Carlos		

[View session abstracts](#)

13:45	676	Gas phase synthesis of nanogranular matter: via percolated nanoparticle networks & nanofluids towards brain-inspired electronics VAHL Alexander (Invited)
14:15	289	Thiol-driven Electroless Plating for Integrating Conductive Metal on 3D-Printed Polymers YANG Hyunseung
14:30	1668	Metallic nanowire based advanced functional nanocomposites: A brief review BELLET Daniel
14:45	2085	Cu-Mo nanocomposites processed by high pressure torsion as novel materials for heat management applications LEWANDOWSKA Malgorzata
15:00	59	Nickel Substituted Cobalt Ferrites via Ceramic Rout Approach: Exploration of Structural, Optical, Dielectric and Electrochemical Behavior for Pseudo-capacitors. ZEESHAN Talat
15:15	160	Polyoxovanadates as molecular devices for data memory applications MOORS Marco
15:30	1736	Grains size effects on the functional properties in fine-grained BST Ceramics PATRU Roxana
15:45	2035	From colloidal nanoparticles to functional monocrystalline metasurfaces SCIACCA Beniamino

Tuesday May 27		
FP02 Poster session		
Chairperson(s): nan		

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16:30	01_10	Transforming EMI Shielding with Epsilon-Negative Graphene Nanocomposites: A New Era of Multifunctionality KATHERIYA Tarun
16:30	02_110	Graphite Enhanced GNP/PVA Composite Piezoresistor with a Stable Loading Response ÖNDER Melike Nur
16:30	03_114	PDMS Nanoparticles mediated siRNA delivery for breast cancer therapy SINGH Sneha
16:30	04_2	Investigation of Si variation in TiSiN coatings using atom probe tomography NAGHDALI Saeideh
16:30	05_2012	Design and reporting of Eu3+-based luminescent solar concentrators BOTTARO Gregorio
16:30	06_2037	Nanostructured boron films preparation by TVA and BP HiPIMS method LUNGU Cristian

16:30	07_2046	In-exchanged CHA-type zeolite from C/CO ₂ sealed tube reduction method KOZAK Roksolana	16:30	26_2344	Design and development of AgI/ NiFe ₂ O ₄ photo-Fenton photocatalyst SHRIVASTAVA Anshu
16:30	08_2052	Study on nickel coating and heat generation characteristics of aluminum powder using substitution method An Seoyoung	16:30	27_2357	Microstructural analysis of the influence of spark plasma sintering parameters on the structure and properties of NiAl based materials CHMIELEWSKI Marcin
16:30	09_2071	Study the hardness of electroplated Ag-5b alloy layer DINH Thu Huyen	16:30	28_2385	Chemical Bath Deposition of ZnO Nanowires: What are the roles of HMTA molecules? APPERT Estelle
16:30	10_2072	Antimicrobial, Superhydrophobic, and Highly Transparent Nanocoatings for Glass Surfaces SINGH Deepika	16:30	29_2437	Heavy-Metal-Free Quantum Dots with Precisely Tuned Core/Shell Structures for Enhanced NIR-II Emissions Kwon Jisu
16:30	11_2107	Nanostructured Ni-C thin films prepared by Thermionic Vacuum Arc method ANGHEL Alexandru	16:30	30_2520	Track template synthesis and characterization of CdS-NW/SiO ₂ /Si nanoheterostructures AKILBEKOV Abdirash
16:30	13_2176	The effect of additives to palladium electrodeposition on copper substrate Shin Seunghee	16:30	31_2521	Engineering the Confined Space of 2D Heterostructures via Cross-Linkers ZUIEVA Sofia
16:30	14_2182	Iron Oxide based Nanocomposites for sustainable fertilization TORRISI Vanna	16:30	32_258	Enhanced pool boiling heat transfer performance with dendritic Cu-Al ₂ O ₃ composite film prepared by a two-step electrodeposition process LIAO Jie-Hau
16:30	15_2193	Composite Artificial SEI Layers for Lithium Metal Anodes: Suppressing Dendrite Growth and Enhancing Cycling Stability KIM Hansol	16:30	33_261	A new magnetic chitosan@calcium phosphate rock biocomposite for efficient removal of lead(II) from water MD AMINUL Islam
16:30	16_2194	Magnetic Metal-Organic Framework-Based Immunosensor for Label-free Electrochemical sensing of NeuroToxin DEVI Sarita	16:30	34_2634	Functional properties of ScN-based films deposited on MgO PROKOP Dejan
16:30	17_2211	Copper-doped InP/ZnSe/ZnS Quantum Dots for High-Performance Luminescent Solar Concentrators KAYA Tarık Safa	16:30	36_2755	Thermally stimulated desorption from the surface of black aluminum layers prepared by PVD methods POKORNY Petr
16:30	18_2224	Synthesis, Characterization, and Environmental Application of Co-Doped UiO-66 for Dye Adsorption YANARDA KOLA Duygu	16:30	37_2759	Investigating Nanoscale Phenomena in Quantum and Multifunctional Materials with Scattering Near-Field Optical Microscopy MAZLOUM Yousra
16:30	19_225	Surface passivation of red perovskite nanocrystals with diphenylammonium halide ligands for light-emitting diodes HUANG Pu-Huan	16:30	38_2761	Chitosan functionalized Eu@SiO ₂ core-shell biosensor and its Biomedical Applications DWIVEDI Arpita
16:30	20_2258	Polydopamine-Assisted Heat-Resistant Adhesives for Enhanced Interfacial Bonding of Dissimilar Materials JUNG Jeyoung	16:30	39_277	A Dual-Function Electrocatalytic Janus Membrane for CO ₂ Capture and Reduction SADHUJAN Sumesh
16:30	21_2293	Preparation and Testing of Portable Ceria Nanoparticle-Anodic alumina Based Assay for Colorimetric Quantification KUCIA Piotr	16:30	40_2818	In-situ grown organic-inorganic hybrid nanostructure for low temperature VOC detection DOBRIYAL Shreshth
16:30	22_2303	Synthesis, Structural, and Spectral Studies of Mn2+ doped LiSrVO4 for Lighting Applications SHARMA Parul	16:30	41_2894	Antibacterial and characteristics of an electrospun chitosan/ZnO composite hydrogel nanofiber MISHRA Yogendra Kumar
16:30	23_2311	Wet method for synthesis of carbon nanotubes ABDISAIDOV Ilyos	16:30	42_2923	Stacking 2D Materials in Homo/heterostructures beyond Van der Waals MIAO Haosen
16:30	24_2321	Structural and Optical Investigation on Undoped And Sm3+ Doped Na ₄ Mg(WO ₄) ₃ Nanophosphors as an Efficient Photoluminescent Material LALOTRA Neha	16:30	43_2954	Synthesis of Cu ₂ O decorated ZnCr layered double hydroxide for enhanced photocatalytic degradation of methyl orange dye and 4-nitrotoluene under visible light GUHA ROY Sukanya
16:30	25_2338	Constructing 2D hetero-interface of MoS ₂ /MnIn ₂ S ₄ with improved interfacial charge carrier transfer for photocatalytic H ₂ O ₂ production KUMAR Uttam	16:30	45_2984	Nanostructured TiO2 Architectures and their Charge Separation Properties VIVES OLLÉ Guillem

16:30	46_3014	Structural Analysis of NdFeO ₃ -PbTiO ₃ Nanocomposite by Rietveld refinement of XRD, Raman and FTIR Spectroscopy SOMVANSHI Anand
16:30	47_3028	A unique vanadium carbide hybrid from preceramic polymer route: synthesis and supercapacitive performance. SUKUMARAN Sudhin
16:30	48_3045	Surface modification of Mg by biofunctional oxide coatings for implantable devices Irimiciuc Stefan Andrei
16:30	49_3103	Assessment of temperature effect on piezoelectric property of PVDF and ZnO nanocomposite thin layers based on in situ monitoring by micro-Raman spectroscopy PURICA Munizer
16:30	50_3131	PANI microelectrode sensors for pH modulation of conductive polymers NOVCIC Katarina
16:30	51_3134	Low-Temperature Behavior of Single- and Multi-Walled Carbon Nanotube Composites KLYM Halyna
16:30	52_347	Enhancing the Properties of ZnO through Carbon Nanotube Doping: A Co-Precipitation Approach ODJERTLI Salah
16:30	53_358	Biodegradable NIR-II Immune Agonists Enabled by 2D Metallic MoS ₂ Genesheets for Synergistic Photothermal Immunotherapy Jl Ding-Kun
16:30	54_38	Preparation and mechanical property study of polyurethane/silicone rubber composites based on polymerization induced phase separation YU Bing
16:30	55_390	Polymer-clay emulsion composites with reversible adhesion properties SIERRA-ROMERO Adriana
16:30	56_395	Self-assembled Protein Nanofibril-Liquid Metal Gallium Biocomposites LIU Li
16:30	57_397	Unveiling the High-Temperature Pesting Behavior of Ultrathin MoSiN Films SEBASTIAN Reethu
16:30	58_399	Correlation of synergistic effect and intertube transfer barrier in conductive composites made from carbon nanotubes, graphene nanoplatelets and liquid silicone rubber CHEN Ping-Chun
16:30	59_41	Towards innovative bio-based transparent wood composite with high energy-saving transmittance. ANTONY Liya
16:30	60_428	Aromatic ring compounds with different conjugation degrees in boronic acid matrix to realize multicolor phosphorescence for time division colorful multiplexing YAO Qing
16:30	61_452	Zr- and Ti metal oxocluster-based hybrid nanoparticles for catalytic applications GROSS Silvia
16:30	62_475	Synthesis and Characterization of NaMF ₃ (M= Fe, Ni, Mn, Co) Nanoparticles as Positive Electrode Material for Na-ion Batteries GAY Romain
16:30	63_511	Iron-based curing activators as sustainable alternatives for elastomeric nanocomposites ALBERTI Lorenzo
16:30	64_522	Preparation and applicaiton of light-weight ablative nano-composite based on PR/SiO ₂ hybrid aerogel Shi Jianjun

16:30	65_64	Utilization of Li-ion mobile battery waste for adsorptive removal of hazardous methylene blue (MB) dye from waste water PANDEY Anmol
16:30	66_723	Covalent networks from solution-processed 2D MoS ₂ : multicomponent materials for multimodal sensing and beyond ZHURAVLOVA Anna
16:30	67_778	Harnessing Dielectric and Magnetic Loss Mechanisms in MoS ₂ @Co Hybrid Nanocomposites for Efficient Microwave Absorption KIVRAK Burak
16:30	68_786	Embedded 4D printing of thermoplastic polyurethane-based soft actuator for biomimicry SAIFI Anas
16:30	69_787	Plasmonic Gold-Embedded Titania Nanotubes: Advancing Semitransparent Electrodes for Visible Light-Driven Photoelectrochemical Applications KHAN Saiful Islam
16:30	70_85	Deposition of Anisaldehyde-Modified Ni-W Nano-Composite Superhydrophobic Coating for enhancing anti-corrosion efficiency and stability of steel substrate by Electrodeposition MAMGAIN Himanshu Prasad
16:30	71_865	Oxysulfate-derived 1D lepidocrocite titanate nanostructures for energy storage and environmental remediation MAITY Sukanya
16:30	72_886	Preparation and application of high-temperature fire-resistant composites by blending into reactive phosphorus and nitrogen synergistic flame retardant Wang Wei
16:30	73_909	Ag-doped PDA interface strategy for selective electron transition integrating EMI shielding and anti-corrosion performance DENG Lechun

Wednesday May 28
F09 Intelligent Nanomaterials-I

Chairperson(s): COSTA Ruben
MACOAS Ermelinda

[View session abstracts](#)

08:30	2210	Nature-mimicking intelligent micro/nanorobots URSO Mario (Invited)
09:00	3040	Pyroelectric composites with semi-conductor nano particles for thermal energy harvesting WANG Qingping
09:15	2450	Development of Dual Photoluminescent Assay Using Quantum Dot-tagged Magnetic Nanoprobes for Respiratory Virus Diagnosis LEE Sojeong
09:30	3016	Low-temperature sintering of nano-ceramics under high pressure WEI Ji
09:45	1830	Reconfigurable Resistive Switching in Silver/Polyethylene Glycol Nanofluids via Dynamic Bridge Formation NIKITIN Daniil

Wednesday May 28

F10 Intelligent Nanomaterials-II

Chairperson(s): RIZZO Aurora

SHEVCHENKO Elena

[View session abstracts](#)

10:30	694	Designing Protein-Polymer Coatings for Lighting Applications COSTA Ruben (Invited)
11:00	351	TiO2-based hybrid spheres as Cyan, Magenta and Yellow pigments for electrophoretic inks GAUDON Manuel
11:15	2473	Synthesis of hybrid particles for colored electrophoretic ink displays BROCHON Cyril
11:30	2387	High-contrast colorless-to-colored thermochromic materials for temperature sensing DINDA Diptiman
11:45	1523	Water in self-assembling peptides: effects on structure and functionality KOPYL Svitlana

Wednesday May 28

F11 Nanoparticles and Polymer Nanocomposites

Chairperson(s): URSO Mario

YADAV Raghvendra singh

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13:45	2604	Polymer-Templated Synthesis as a Platform for Designing High-Performance Optical, Catalytic, Sensing, and Electrocatalytic Conformal Coatings SHEVCHENKO Elena (Invited)
14:15	262	Space matters: exploiting confined space for inorganic materials synthesis GROSS Silvia
14:30	396	Engineering Oxide Ceramic Fillers for Thermal Interface Materials with Exceptional Thermal Conductivity and Improved Thixotropy MOON Young Kook
14:45	1844	Design and characterisation of amine-rich double hydrophilic block copolymers, new bricks to form functional mesoporous materials Schmitt Julien
15:00	2531	Enhancing the Reactivity of Graphene and Synthesis of Nanocomposites with Nanoparticles and Polymers YAN Mingdi
15:15	2880	3D Advanced Functional Materials for Environmental Remediation SULANIA Indra

Thursday May 29

F12 Engineered Nanomaterials

Chairperson(s): HOYE Robert

MACOAS Ermelinda

[View session abstracts](#)

08:30	2989	Crystal phase engineering of 2D magnetic materials MATTEVI Cecilia (Invited)
09:00	127	Intercalation in 2D TMDs and membranes fabrication for water purification ZENG Zhiyuan
09:15	2120	Advanced Templated Growth of Highly Stable and Uniform CsPbBr ₃ Vertical Nanowire Arrays for Light-Matter Interaction Engineering PRASAD Neena
09:30	2809	Recovery of Gold from e-waste by laser reduced graphene oxide and application for catalytic CO ₂ conversion SCARDACI Vittorio
09:45	274	Acquisition of electron energy spectra and images using a miniature electron energy analyser WALKER Christopher

Thursday May 29

F13 Perovskite Nanocrystals

Chairperson(s): HOYE Robert

MACOAS Ermelinda

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10:30	234	Polarised light emission from halide perovskite nanocrystals HOYE Robert (Invited)
11:00	743	Overcoming the surface paradox: Buried perovskite quantum dots in wide-bandgap perovskite thin films EVEN Jacky
11:15	2128	Towards materials with three electronic bands: the case for colloidal quantum dots in perovskite RAMIRO Iñigo
11:30	1840	Synthesis of perovskite oxide nanoparticles in plasma activated liquid microdroplets TARASENKA Natalie
11:45	3196	Perovskite LEDs for Lighting and Displays WANG Jianpu

Thursday May 29

F14 Perovskite and other Advanced Nanocrystals

Chairperson(s): MATTEVI Cecilia

RIZZO Aurora

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13:45	245	Flexing the Potential of Halide Perovskites: How Structural Dynamics Shape Optical, Magnetic, and Mechanical Properties MUSCARELLA Loreta (Invited)
14:15	2535	Reconstructing Current–Voltage Curves for Improved Diagnosis of Perovskite Solar Cell Dynamics. RIPOLLES Teresa S.
14:30	2192	Preventing lead leakage in perovskite solar cells with a sustainable titanium dioxide sponge FISICARO Giuseppe
15:00	1419	Shedding Light on Wide Bandgap Perovskites SALIBA Michael (Invited)
15:30	1761	Ion Beam Synthesis of metallic Nano–Oxides in FeCr: Advancing Structural Materials for Nuclear Applications RAJBHAR Manoj Kumar
15:35	2644	Fabrication of Mixed Metal Oxide Nanowires Using Block Copolymer Templates for Volatile Organic Compound Sensing PULA Przemyslaw
15:40	546	Optical constants of silver nanowire networks : theory and experiments BARET Amaury
15:45	1316	High-Throughput Screening of Superconductors via Combinatorial Inkjet Printing GHIARA Emma
15:50	3020	Large-area deposition of type-II MoS ₂ –WS ₂ nanopatterned heterostructures for improved visible-light photoconversion FERRANDO Giulio
15:55	3039	Optimization of CsPbI ₃ perovskite Quantum Dots for Enhanced Stability and Optoelectronic Performance NAZIRI Pouriya

Thursday May 29

FP04 Poster session

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16:30	01_1026	Effect of proton concentration on the proton conductivity of calcium niobium oxide nanosheet RAHMAN Mohammad Atiqur
16:30	02_1027	Doping-Induced Phase Control in Hf0.5Zr0.5O2 Films for High-k Dielectric Applications PARK Sung Hyuk
16:30	03_1038	Tunable nanostructures of SiHfBCN hierarchical porous ceramics with high strength and well-defined ductility ZHU Xiyue

16:30	04_1056	Silver Nanocube Epitaxy via Nanogap-induced Electrostatics Fajri Muhammad Luthfi
16:30	05_1068	Bismuth quantum dots in annealed parabolically graded GaAsBi/AlGaAs quantum well structures DUDUTIENE Evelina
16:30	06_1084	Energy Conversion using BODIPY–Gold Bipyrramids Chains: Plasmonic, Photothermal, and Pyroelectric Synergies HEMANT Hemant
16:30	07_1091	Iron oxide multifunctional nanoplatforms: towards temperature control in photothermia and magnetothermia ABDEL SATER Farah
16:30	08_1110	Site-Selective Photoluminescence from Dual Mode Excitation of Rare-Earth Doped Nanophosphors SINGH DEO Ib
16:30	09_1151	Fabrication of SERS-Based Substrate for the Detection of C-Reactive Protein (CRP), a Biomarker of Liver Cirrhosis NAQVI Tania
16:30	10_1165	The enhanced compatibility of surface-modified Mg ₂ SiO ₄ nanoparticles in PPE/PS matrix and their properties in millimeter-wave technology CHIU Yen-Lun
16:30	11_1186	Controllable interfacial engineering for multifunctional one-component adhesive: on-demand bonding activated by versatile ways LI Zhaoxin
16:30	12_1205	From Alloys to Core/Shell: Diverse AgPt Nanostructures in Polymer Environments FAHES Abeer
16:30	13_1206	Chemical vapor deposition of Graphene on nanostructured Molybdenum ZAPPALÀ Sonia
16:30	14_1240	Well defined synthesis and characterization of complex nano shapes ZHANG Wei
16:30	15_1257	Controlling thermochromic behavior of VO ₂ films from hyperthermia of magnetic composites HOANG-THI-THANH Hai
16:30	16_1268	Controlling thermo-chromic behavior of VO ₂ films from hyperthermia of magnetic composites HOANG-THI-THANH Hai
16:30	17_1414	A Novel Eco-Friendly Synthesis of Magnesium Nanostructures for Plasmonic and Photocatalytic Applications ABBAS Doha
16:30	19_1466	Hydrothermally-assisted Synthesis of Highly Stable Nitrogen-Doped Hard Carbon Anodes for Sodium-Ion Batteries MOYSEOWICZ Adam
16:30	20_1480	Multifunctional single layer nanocomposite coating for corrosion mitigation in salty environment KUMAR Manoj
16:30	22_1491	Heater@luminescent nanoplatforms based on Prussian blue core@silica shell nanoparticles for photothermia and thermometry LARQUEY Aurore

16:30	23_1518	Engineering mesoporous silica-supported silver nanocomposites for enhanced antimicrobial applications LASALA Pierluigi
16:30	24_1537	Sodium Carboxymethylcellulose-Carbon Nanotube Hybrid Composite: A Sustainable Approach to Humidity Detection: BIERNACKA Dorota
16:30	25_1539	Synthesis of plasmonic-dielectric nanocomposites by energetic ions DAS Niladri Mohan
16:30	26_1548	Evaluation of different plasmonic materials for performance improvement of FQ-SPR sensors ZAGAR Cristian
16:30	27_1556	Design of graphene/iron oxide nanomaterials and their loading onto supports for the continuous extraction of persistent pollutants from air and water environments VAZ-RAMOS Joana
16:30	28_1598	Reactively sputtered copper nitride nanoparticles prepared in cylindrical magnetron discharge ERVENKOVÁ Veronika
16:30	29_1650	Eu3+ doped PMMA windows: Enabling Sustainable and Multifunctional Building Solutions MOTTA Irene
16:30	30_2157	Isoporous TiO2-Fe2O3 Structures for Photocatalysis Fabricated by Atomic Layer Deposition THONAKKARA JAMES Nithin
16:30	31_1677	Bionic Photonic composites: Opal like photonic crystals formed by self-Assembled Nanospheres Tailoring Photosynthesis GUEDES Francisca
16:30	32_1723	Coating made easy: lab-scale slot die deposition of oligothiophene-doped PMMA for luminescent solar concentrators MOTTA Irene
16:30	33_1743	Layered gadolinium/terbium hydroxide theranostic probes for in vivo CT imaging STRIMAITE Margarita
16:30	34_1834	Enhanced PhCN Nanosheet Stacking via WS2 Nano-Linkers: A Metal Co-Catalyst Free 2D-2D Hybrid for Broad-Spectrum Hydrogen Production HAZRA Moulika
16:30	35_1876	Multiscale correlative characterisation and patterning of graphene-related nanomaterials SHAFFER Milo
16:30	36_1932	VO ₂ Metal-Insulator Transition: Role of Nanoparticle Size and Morphology BANSHAMLAN Asma
16:30	37_1936	Effect of reaction temperatures on the hydrothermal process for synthesizing Ni nanosheets and their catalytic application in coupling reactions DAS Gobind
16:30	39_1961	Development and characterization of nano-enabled PCMs for thermal energy storage LONKAR Sunil
16:30	40_1965	Geometry mediated interconvertibility between spin-glass and superparamagnetic relaxation in spinel ferrite nanostructures SARKAR Sourav
16:30	41_1969	VO ₂ (B)-V ₂ O ₅ Nanocomposite Thermistor for High Temperature Operation of Microbolometers Mo Jeongeun

16:30	42_1977	Sharp NIR Zero Phonon Line from Cr3+ Substituted Lead-Free Quadruple Layered Halide Double Perovskite Material ROY Tiasha
16:30	43_2022	Room Temperature Wood Aerogel Synthesis XU Xiaoying
16:30	44_2076	Reshaping of Covalent Nanowires by Explotation of Unexpected Plasticisy Oras Sven
16:30	45_2098	Interphase-Engineering by Atomic Layer Deposition of Nacre-Inspired Alumina Composites NISAR Talha
16:30	46_2110	Engineering of barely tangible carbon impurities in TiO ₂ nanoparticle networks VIVES OLLÉ Guillem
16:30	47_2132	Towards an understanding of the crystallization of the thermochromic perovskite SmNiO3: a classical nucleation theory approach (CNT) applied to thin films and nanoparticles CALVO-MOLA Carlos
16:30	48_2251	Core Shell ZnO Nanowire Heterostructures for Piezoelectric Devices LEFEBVRE Emilien
16:30	49_2267	Fabrication and characterization of dual-functional cotton gauze with antibacterial and antifouling properties as wound dressings SAHOO Madhusmita
16:30	50_2300	Effect of Dy Substitution at Nd Sites in Melt-spun Nd-Fe-B Permanent Magnet Ribbons: A magnetic system for Electric Vehicles. DEY Shrantik Kumar
16:30	51_2310	Morphological modulation and interaction in CdS Quantum Dots embedded in nanopolymer blend films KUMAR Hemant
16:30	52_2322	Effect of Dy Substitution at Nd Sites in Melt-spun Nd-Fe-B Nano-composite Ribbons: A magnetic system for Electric Vehicles. DEY Shrantik Kumar
16:30	53_2345	PAni/CuHCF LbL films for advanced applications in environmental sensing Sciacca Rosalinda
16:30	54_2359	Impact of Dy3+ Doping on Structural and Optical Investigations of Li ₂ NaPO ₄ phosphor PATHANIA Kamni
16:30	55_2363	Detecting VOCs with Metal Halide Perovskites LANDROU Georgios
16:30	56_2381	Highly Efficient ZnO@C Core@Shell Nanoparticles for Sustainable Photocatalytic Degradation and Hydrogen Evolution PRASAD Neena
16:30	57_2399	Structural Resolution of Various Active Species in GaPt Supported Liquid Metal Catalysts for Dehydrogenation Reactions HSIEH Tzung-En
16:30	58_2419	Tuning the electronic and optical properties of 1L- MoS ₂ through controlled thermal treatments MIGLIORE Francesca
16:30	59_2490	Tuning the electron injection mechanism by changing the adsorption mode: TiO ₂ nanoparticles functionalized with fluorescent dyes DALDOSSI Chiara

16:30	60_2559	I'm Melting!: Examining Size, Crystallographic, and Morphological Trends in Hydrogen Silsesquioxane-Derived Silicon Nanoparticle Composites. RUBLETZ Abbie	16:30	78_3198	Microstructure and mechanical properties of an additively manufactured WMoTaNbNiTi refractory high-entropy alloy XIAO Bang
16:30	61_2603	Photothermal Properties and Oxidation Behavior of Antimonene and Bismuthene ALCARAZ Marta	16:30	79_3199	Flexible and Hierarchical Structured Alumina Boron Nitride Nanofibrous Aerogel for Thermal Superinsulation in Extreme Conditions LIU Jianfei
16:30	62_2647	Phase-separation in the initial growth stage of exsolution-active SrTi0.95-xNi0.05NbxO3-S thin films probed by low-temperature Scanning Tunneling Microscopy LIU Yen-Po	16:30	80_3200	Additively manufactured CoCrNi-TiC medium entropy alloy composite with ultra-high strength over wide temperature range MA Jun
16:30	63_2649	Stimuli-Responsive Polymer Nanocomposites for Quasi-Homogeneous Catalysis in Chemical Transformation PADHEE Jitu	16:30	81_3201	Preparation and Properties of Practical MgB2 superconducting wires WANG Qingyang
16:30	64_2653	Liquid Crystal route for Silicon Nanowires: Stabilization and Self-Assembly of Oriented Macrostructures TILVE-MARTINEZ David	16:30	82_3202	High-power perovskite light emitting diodes Xu Weidong
16:30	65_2698	Bioglass from silica nanoparticles to produce bone scaffolds for mandibular osteoradionecrosis treatments. A study of calcium insertion and particles organization prior to scaffold formation. Pierron Alexandra	16:30	83_978	Gold Nanostructures for Benzo furyl-based Anti-tumoral Photoinduced Drug Delivery Systems Santarsiere Alessandro
16:30	66_2797	Highly Sensitive SERS Substrates Based on MoS2-Au Nanocomposites for Detection of Hazardous Dyes and Infectious Bacteria KAUSHIK Arvind			
16:30	67_2810	Deposition of combinatorial oxide thin films by Spatial Atomic Layer Deposition for optoelectronic applications PAUL RAJ Vijaya Shanthi			
16:30	68_2815	Differential End-functionalization of Single Walled Carbon Nanotubes Hong Weiying			
16:30	70_2900	Enhanced Stability of PbS Quantum Dot Solar Cells Using Novel Molecular Hole Transport Layers Zhou Wei			
16:30	71_2970	Sustainable synthesis of Marine-based Bio-polymers (Chitosan & PHA) and their nanocomposites for Emerging Applications AWASTHI Surabhi			
16:30	72_3062	Polycaprolactone based nanocomposite scaffolds with enhanced antimicrobial properties and cellular adhesion for bone regeneration AGRAWAL Meenal			
16:30	73_3084	Enhanced flux pinning properties of Ga2O3: YBCO nanocomposite superconductor KUMAR Sandeep			
16:30	74_3114	The SMURFnano Project - Standardized Measurements of Surface Functionalities on Nanoparticles RESCH-GENGER Ute			
16:30	75_3137	Getting it Right with Absolute Measurements of Photoluminescence Quantum Yields of Scattering LED Converter Materials RESCH-GENGER Ute			
16:30	76_3164	Nanocluster induced crystallization: in situ visualization and 3D reconstruction ZOU Zhaoyong			
16:30	77_3197	New high strength and high conductivity Cu-Nb microcomposites wires with Nb foils as strengthening phase WANG Pengfei			