



European Materials Research Society

2026 Spring Meeting

May 25 - 29
Strasbourg Convention Centre

SYMPOSIUM Ubis

Nanomaterials for healthcare and biomedical engineering

Oral sessions : MARIE CURIE B - FIRST FLOOR

Poster sessions : ETOILE - FIRST FLOOR

Symposium Organizers:

Ángel SERRANO- AROCA, Universidad Catolica de Valencia, Spain

Małgorzata KUJAWSKA, Department of Toxicology, Poznan University of Medical Sciences, Poland

Sanjay MATHUR, Department of Chemistry, University of Köln, Germany

Yogendra Kumar MISHRA (Main organizer), Mads Clausen Institute, University of Southern, Denmark

Symposium Sponsors:



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Thursday May 28

Ubis12 Nanomaterials for Environmental Applications

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08:45	665	Synthesis of smart surfaces using low energy ion beams in MXene Composites SULANIA Indra
09:00	720	Computational-guided identification of MOFs and zeolites for VOCs capture GRIGOLETTO Sabrina
09:15	1229	Fabrication of metal-organic framework doubly clamped microbeam mass resonator towards VOC sensing RAJAGOPAL Divya
09:30	692	Nanosized zeolites for enhanced detection of Volatile Organic Compounds MERFOUK Fatim Ezzahra
09:45	1347	Probing Effective Pore Size of Sensing Materials via Inverse Gas Chromatography KARAMI Kavosh

Thursday May 28

Ubis13 Nanomaterials for Healthcare Applications

[View session abstracts](#)

10:30	999	Liquid Metal Nano Composites: Fundamentals, Applications, and Outlook KALANTAR-ZADEH Kourosh
10:45	796	Exploring the Mechanism of Antibacterial Action of Minocycline-Loaded Carbon Nanodots SEIVERT Océane
11:00	997	Layer-by-Layer Nanoarchitectures for Theranostics and Controlled Release ROY Sathi
11:15	2461	Tailored Mesoporous Silica Nanoparticles Improve Insulin Stability and Intestinal Permeability for Oral Delivery IRIARTE MESA Claudia

Thursday May 28

Ubis14 Carbon Materials based Healthcare Devices

[View session abstracts](#)

14:00	3308	Engineering energy-harvesting multicomponent nanoscintillators for enhanced cancer radiotherapy VILLA Irene
14:15	1508	Highly Efficient Short-Wave Infrared-Emitting Rare Earth-based Core-Shell Nanocrystals for In Vivo Imaging Above 1400 nm HUDRY Damien
14:30	3238	Controlling the biodegradation of magnesium based implants with laser surface treatments POU-ÁLVAREZ Pablo
14:45	2626	Investigating the mechanistic details nano-catalytic interactions of alkaline phosphatase with carbon-based dots: sensing approach CHAKRABORTY Madhurima
15:00	2356	2D-TMD gate electrodes enable high-performance OECT-based neurotransmitter detection MASSETTI Matteo

Ubis-2 - Status on 19/05/2026

15:15	1758	Nanomaterial-Based Sensors for Non-Invasive Remote Monitoring of Kidney Disease in Sweat MATTEOLI Giulia
15:30	1755	Spectroscopy and Machine Learning for Early Detection of Chronic Wound Biomarkers GUO Guanting

Thursday May 28

Ubis15 Materials based Imaging and Devices

[View session abstracts](#)

16:30	1031	Biosensors for Public Health Detection and Analysis AWASTHI Anjali
16:45	2336	Biological transistor (bioFET) for the specific and label-free sensing of CRP in unprocessed blood BABBAR Shubham
17:00	2678	Novel gating mechanism employed on nano bio-FET towards real-time, point-of-care diagnostics in human whole blood GARIKA Vijay Kumar
17:15	2912	A versatile P3HT Multifunctional Conductive Platform for Neural Interfacing and Bone Repair MESSINA Grazia Maria Lucia

Friday May 29

Ubis16 Hybrid Nanomaterials for Healthcare

[View session abstracts](#)

08:30	18	Tetrapods based Smart Materials for Advancing Healthcare Technologies MISHRA Yogendra
08:45	2445	Materials-driven Phototaming of Bacterial Bioelectricity PATERNÒ Giuseppe Maria
09:00	785	Synergistically Enhanced Enzyme-Like Activity of FeSe ₂ /rGO Nanohybrid: Kinetic, Mechanism and Molecular Docking Studies CHALANA Ashish
09:15	2076	Green-Synthesized Chitosan-MXene-Silver Nanocomposite: A Synergistic Antimicrobial Platform from Agro-Industrial Waste PRADHAN Asima
09:45	27	Functionalization Dependent Biodegradation of 2D Materials: Impact on Immune Modulation and Applications RAJENDRA Kurapati
10:00	327	Rational Design of Lipid-Silica and Polymer-Silica Hybrid Nanocarriers for Controlled Cancer Drug Delivery IQBAL Sumiya

Ubis-3 - Status on 19/05/2026

Friday May 29

Ubis17 Functional Materials for Healthcare

[View session abstracts](#)

10:30	862	Microfluidic Hybridization of Liquid-Crystalline Nanoparticles with Extracellular Vesicles for Advanced Therapeutics BALESTRI Arianna
10:45	2593	2D Nanomaterial coatings stimulate distinct calcium signalling in brain astrocyte cells PALERMO Vincenzo
11:15	2394	Phosphate-triggered liquid-liquid phase separation of silk fibroin and stabilizing into robust films through ethanol treatment in simulated biological fluids MALASPINA Rocco
11:30	2586	An Optimization Framework for High-Fidelity DLP Printing of Photopolymerizable Hydrogel Scaffolds for Tissue Engineering Applications SHRIVASTAVA Aashi