

POSTER SESSION I

IN²UB INHOUSE MEETING 2025

Location: Martí I Franquès Hall of the Faculties of Chemistry and Physics UB.

Date: 10th July, 2025

Time: 11.20h – 12.15h

NanoMet

P1 Crystalline Phase-Dependent Dielectric Properties Of HfO₂: A TEM And EELS Study

NanoBio

P2 Dwell Time Dispersion In DNA Translocation Through Nanopores

P3 Cannabidiol On Synthetic Neuronal Membranes

P4 Nanostructured Topographies For Cardiomyocyte Alignment Using Two-Photon Polymerization

P5 PCSK9 Inhibition By Polypurine Reverse Hoogsteen Hairpins

P6 Micro And Manoengineered Heart-On-A-Chip For In Vitro Study And Treatment Screening Of Catecholaminergic Polymorphic Ventricular Tachycardia

P7 TRIFAPYs As Lipid-Based Delivery Of PPRHs Targeting Survivin In Cancer And Brain Endothelial Cells

NanoPharmaMed

P8 3D Spheroids Induced By Superhydrophobicity As Both In Vitro Diagnostic And Therapeutic Tools

P9 Synthesis Of TPE-Based Aie Fluorescent Probes And Their Application In Bioimaging

P10 Halloysite Based Nanomaterials For Potential Theranostic Application

P11 Biological Profiling Of ZnO And TiO₂ Nanoparticles: Hemocompatibility And Phototoxicity Compared

P12 Molecular Photoswitching: Energy Storage And Controlled Release In Light-Induced Trans-Cis Isomerization

P13 Responsive-Functionalized Silicon Oxide Microchips As A Sensing Platform For Intracellular Recognition Of Glutathione

P14 Nanotechnological Breakthrough For ALS: Multifunctional pVEC-PEG-PLGA Nanoparticles For Targeted Riluzole Delivery To Motor Neuron Diseases

P15 Self-Assembled Porphyrin Gels For Enhanced Singlet Oxygen Generation For Photodynamic Therapy

P16 Advanced Nanocarrier Platforms For The Delivery Of Bakuchiol, Encapsulation Efficiency And Release Profiling

P17 Robust Calix[4]Arene–Polyethyleneimine Functionalized Iron Oxide Nanoparticles For Efficient Recovery Of Gold And Platinum Chloride Complexes

P18 In Vitro Release And Ex Vivo Permeation Study Of Lipid Solution For Topical Treatment Of Psoriasis

NanoPhotoElectro

P41 Development Of ZIF-8 Thin Film Sensors For The Detection Of Volatile Organic Compounds

P42 Inkjet-Printed CsCu₂I₃ Perovskite Photodetectors: Synthesis, Optical Characterization, And Device Performance

P43 Novel Gas Sensors Based On (MGCONICUZN)O High-Entropy Oxide

P44 Influence Of Pulsed Current Driving On The Lifetime And Efficiency Of CsPbBr₃-Based PeLEDs

P45 Depth Sensible Instrument For Mueller Matrix Imaging

P46 Effect Of Relative Humidity And Temperature On The Chemoresistive Gas Sensing Of Ni₃(HHTP)₂ MOF

P47 Full Stokes Imaging Using Wavelength-Dependent Retardation In A Polarization Camera

NanoEnergy

P60 Dielectric-Metal-Dielectric Thin Film Structures As Transparent Electrodes For Solar Cells

P61 Evaluation Of TiO₂–HCl Inks For Chemical Sintering In Direct Ink Writing (DIW) 3D Printing Processes For Water Treatment Applications

P62 New Technologies Of Transparent Solar Cells With Oxides For Advanced Photovoltaic Integrations

P63 Carbide-Based Materials As Catalysts For The CO₂ Reduction To Syngas Processes

Research Areas Collaborations

P64 Corona Personalisation Via Iterative Exposure To Media Modulates Nanoparticle Toxicity (NanoMet & NanoPharmaMed)

P65 Development Of Triphenylene-Derived MOFs For Their Use In Green Catalysis (NanosMat & NanoPhotoElectro)