

CONFERENCE PROGRAM

The 4th Serbian Conference on Materials Application and Technology - SCOM

October 15th-17th 2025, Belgrade

Wednesday, October 15th, 2025	
Vlatacom Institute – Conference hall	
09.30-13.00 Registration	
Session 1	
Session chair Željka Antić	
10.00-10.15	Opening ceremony
10.15-10.45	Vlatacom Institute presentation Daniel Mijailović <i>NEXT-EDLC: Carbon-based electrode development for high-performance supercapacitors</i>
10.45-11.30	Tutorial lecture ONLINE Volodymyr Pavlyuk <i>Introduction to Determining Crystal Structure by X-Ray Diffraction</i>
11.30-12.00	Coffee Break
Session 2	
Session chair Vesna Đorđević	
12.00-12.30	Invited lecture Zoran Ristić <i>Data-Driven Thermometry on Mn⁵⁺ Doped Ca₆Ba(PO₄)₄O Phosphor</i>
12.30-12.45	Jan Hočevar <i>Cellulose-Based Hydrogels: Emerging Biomaterials for Sustainable Applications</i>
12.45-13.00	ONLINE Azmat Ullah <i>Optimisation of Titanium Dioxide Photocatalytic Efficiency with Lignin Derived Carbon Quantum Dots</i>
13.00-13.30	Coffee Break
Session 3	
Session chair Ljubica Đačanin Far	
13.30-13.45	Anđela Rajčić <i>Photocatalytic and Antimicrobial Properties of Rare-Earth-Doped BiOCl</i>
13.45-14.00	Tamara Ivetić <i>Up-conversion Luminescence and Lifetime Thermometry in Er³⁺/Yb³⁺-doped YNbO₄ Nanophosphors</i>
14.00-14.15	Radu Banica <i>Rapid Synthesis of YBO₃ as Host Materials for Pr³⁺ Doping</i>
14.15-14.30	Cristina Mosoarca <i>Assessment of The Toxicity and Germicidal Activity of Y₂SiO₅:Pr³⁺ and La(PO₃)₃:Pr³⁺ Compounds Against Escherichia Coli</i>
14.30-14.45	George Dima <i>Prediction of 5d Level Absorption Wavelength in Inorganic Hosts: Random Forest Model with SHAP Prioritization Of Candidates</i>
14.45-15.00	Tamara Matić <i>The Ion-Doping of Mesoporous Bioactive Glass Particles</i>
15.00-16.30	Vlatacom Institute exhibition and welcome party

Thursday, October 16th, 2025

Vlatacom Institute – Conference hall

09.30-13.00 Registration

Session 4

Session chair Dušan Božanić

10.00-10.45

Tutorial lecture ONLINE Michal Piasecki *How to Effectively Improve the Desired Properties of Energy Harvesting Materials?*

10.45-11.00

Danijela Danilović *Novel Hybrid Nanomaterials as NIR Light-Driven Nanomotors for Biomedical Applications*

11.00-11.15

Anamarija Abu El Rub *Solid Lipid-Metal Nanoparticles Funcionalized by Amino Acids*

11.15-11.45

Coffee Break

Session 5

Session chair Vesna Lazić

11.45-12.30

Tutorial lecture ONLINE Oleg Khyzhun *Application of X-Ray Photoelectron Spectroscopy for Verification of DFT Band-Structure Calculations of Solids*

12.30-12.45

Sofia Maleeva *Cr³⁺ Doped Calcium Stannate Persistent Luminescence Material*

12.45-13.00

Valentina Nikšić *Eco-Safe Bioactive TiO₂ Nanohybrids Functionalized with Green Tea Phenolics*

13.00-15.00

Break

Session 6

Session chair Aleksandar Ćirić

15.00-15.30

Invited lecture Jelena Papan Djaniš *Biomass-Derived Carbon Quantum Dots: Structural Insights and Photoluminescence from Tomato Sources*

15.30-15.45

ONLINE Miriama Malček Šimunková *Indirect EPR Study of TiO₂ Modified with Natural Extracts*

15.45-16.00

ONLINE Michal Malček *Hydrogen Binding and Hydrogen Cleavage on Single Metal-Decorated Circumcoronenes*

Friday, October 17th, 2025

Vlatacom Institute – Conference hall

Session 7

Session chair Zoran Ristić

10.00-10.45	Tutorial lecture ONLINE Chong-Geng Ma <i>First-Principles Calculations For Intrinsic and Extrinsic Defects In Solids: Methodology and Case Studies</i>
10.45-11.00	Dušan Sredojević <i>Analysis of the Electromagnetic Shielding Properties of Graphene Oxide Coated with Platinum Nanoparticles</i>
11.00-11.15	Milica Maričić <i>Gamma Irradiation Impact on Mechanical, Structural and Optical Properties of Natural Leather</i>
11.15-11.30	Snežana Đurković <i>Physics-Informed Artificial Intelligence Framework for Predicting Luminescence Properties of Cr³⁺-Doped Inorganic Phosphors</i>
11.30-12.00	Invited lecture Dragica Manojlović <i>Current Trends in the Development Of Dental Composites with Enhanced Optical Properties</i>
12.00	Closing ceremony