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# 30<sup>TH</sup> YOUNG INVESTIGATORS' SEMINAR ON ANALYTICAL CHEMISTRY SCIENTIFIC AND SOCIAL PROGRAMME

Faculty of Chemistry and Chemical Technology, University of Ljubljana,  
 Ljubljana, Slovenia  
 June 30<sup>th</sup> - July 3<sup>rd</sup> 2025



# Scientific and social programme of YISAC 2025

**MONDAY, June 30<sup>th</sup>, 2025**

LOCATION: Lecture room 2, located on the 1<sup>st</sup> floor of the Faculty of Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia

TIME

**19:00**

**Registration of participants  
Get-together party**

**TUESDAY, July 1<sup>st</sup>, 2025**

LOCATION: Lecture room 2, located on the 1<sup>st</sup> floor of the Faculty of Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia

**9:00**

**Opening of YISAC 2025**

**9:30**

**GRZEGORZ KOWALSKI**

*Activation and modification of 3D-printed WE, RE and CE used for electroanalysis of paracetamol*

**9:45**

**ANDRZEJ KREMPIŃSKI**

*Electroanalytical studies of Brilliant Blue G at the electrified water-organogel interface*

**10:00**

**MARYIA-MAZHENA DZEMIDOVICH**

*Thin Organic Film Electrodes as a Promising Tool for The Investigation of The Anticancer Drug Docetaxel*

**10:15**

**SANDRA CHMIEL**

*Electroanalytical Determination of Penoxsulam on a Boron-Doped Diamond Electrode*

**10:30**

**MAKSIMILJAN DEKLEVA**

*Amino-acid Functionalized Mesoporous Silica Thin Film: A Promising Platform for Electrochemical Capture and Sensing of Polystyrene Nanoplastics*

**SESSION I**

**Electrochemical Methods**

*Moderators: Aniljan Cristina Barros Lobato, Tijana Mutić*

# Scientific and social programme of YISAC 2025

10:45	Coffee break	
11:15	<b>AMINA PAŠOVIĆ</b> <i>Toward Smart Battery Diagnostics: Printed Sensors for Real-Time Monitoring of Transition Metal Dissolution</i>	<div>SESSION I</div> <div>Electrochemical Methods</div> <div>Moderators: Mohanraj Sadasivam, Aleksandar Mijajilović</div>
11:30	<b>ANJA SIHER</b> <i>Enhancement of cobalt hydroxide electrochemical performance through morphology control and composite formation</i>	
11:45	<b>BARBARA REPIČ</b> <i>Post-Deposition Treatment of Graphite-Based Working Electrode</i>	
12:00	<b>JOSIPA DUGEČ</b> <i>Mechanistic Insights into the Electrochemical (Ir)Reversibility of Gallic Acid at Carbon Nanotube Electrodes</i>	
12:15	<b>BARTŁOMIEJ HURNY</b> <i>Electroanalytical studies with electrode printed using direct ink writing</i>	
12:30	<b>SÁRA HERMOCHOVÁ</b> <i>Visualization of Latent Fingerprint with Poly(Neutral Red) and Study of its pH Dependence</i>	
12:45	Lunch break	
13:45	<b>BRANKA RUŽIČIĆ</b> <i>Antioxidant and antimicrobial properties of blackberry extract</i>	<div>SESSION II</div> <div>Chromatography</div> <div>Moderators: Tia Kralj, Špela Pok</div>
14:00	<b>NIKA MARIJA MURENC</b> <i>Deep Eutectic Solvents for Efficient and Sustainable Extraction of Bioactive Compounds from the Peels of Selected Slovenian apple varieties</i>	

# Scientific and social programme of YISAC 2025

<b>14:15</b>	<b>EMMA PAOLIN</b> <i>Application of a multidisciplinary approach combining sensory and TD-GC-MS-O analysis for the characterization of VOCs emitted by ancient Egyptian mummified bodies</i>	<b>SESSION II</b> <b>Chromatography</b> <i>Moderators: Tia Kralj, Špela Pok</i>
<b>14:30</b>	<b>ALEKSANDER KRAVOS</b> <i>How will water contaminants dissipate in marine environment? Sorption versus photodegradation</i>	
<b>14:45</b>	<b>Coffee break</b>	
<b>15:00</b>	<b>ANA ŠIJANEC</b> <i>Phospholipid Determination in Lecithin: A Standard-free Approach</i>	<b>SESSION II</b> <b>Chromatography</b> <i>Moderators: Tia Kralj, Špela Pok</i>
<b>15:15</b>	<b>KAJA GLIHA</b> <i>Use of deep eutectic solvents for the analysis of white mulberry (Morus alba) samples</i>	
<b>15:30</b>	<b>MATEVŽ POLAK</b> <i>Method development for the chromatographic separation and extraction of organic UV filters from seawater samples</i>	
<b>15:45</b>	<b>VENO JAŠA GRUJIĆ</b> <i>Pigment analysis in the alga Haematococcus pluvialis</i>	
<b>16:00</b>	<b>Leisure time</b>	
<b>19:00</b>	<b>Supervisors' dinner</b> Gostilna pri Žabarju Viška cesta 48, 1000 Ljubljana	

# Scientific and social programme of YISAC 2025

**WEDNESDAY, July 2<sup>nd</sup>, 2025**

LOCATION: Lecture room 2, located on the 1<sup>st</sup> floor of the Faculty of Chemistry and Chemical Technology, University of Ljubljana, Ljubljana, Slovenia

TIME		<b>SESSION III</b> <b>Electrochemical Sensors</b> <i>Moderators: Maksimilijan Dekleva, Josipa Dugeč</i>
<b>9:00</b>	<b>ALNILAN CRISTINA BARROS LOBATO</b> <i>Affinity-based Strategies for Electrochemical Detection of Viruses and Viroids</i>	
<b>9:15</b>	<b>GABRIELA SATORA</b> <i>Analytical characteristic of a biosensor based on Horseradish Peroxidase for electrochemical determination of estrogens</i>	
<b>9:30</b>	<b>TIJANA MUTIĆ</b> <i>Design and synthesis of neodymium-oxide for effective electrochemical detection of hazardous pesticide carbofuran</i>	
<b>9:45</b>	<b>MOHANRAJ SADASIVAM</b> <i>Label-free electrochemical immunosensor based on gelatin-CeO<sub>2</sub> nanocomposite for sensitive detection of insulin</i>	
<b>10:00</b>	<b>NINA TEŽAK</b> <i>Preparation and application of a molecularly imprinted polymer for indirect electrochemical sensing of acetamiprid</i>	
<b>10:15</b>	<b>EVA POSPÍŠILOVÁ</b> <i>Electrochemical Sensors for the Forensic Detection of New Psychoactive Substances</i>	
<b>10:30</b>	<b>ALEKSANDAR MIJAJLOVIĆ</b> <i>Lanthan's touch: designing La-Dy<sub>2</sub>O<sub>3</sub>/MWCNT sensor for electrochemical detection of metal in environmental and biological fluids samples</i>	
<b>10:45</b>	<b>MITJA KODERMAN</b> <i>Electrochemical Detection of PSA Biomarker Using a Ruthenium-Decorated Titanium Oxynitride Nanocomposite-Based Immunosensor</i>	



# Scientific and social programme of YISAC 2025

11:00	Coffee break	
11:30	<b>LAURA MILIŠIĆ</b> <i>Surface Characterization of ZnM<sup>3+</sup> Oxide Catalyst Supports by Physisorption and Chemisorption Methods</i>	<div>SESSION IV</div> <div>Optical and Surface Methods, Biochemistry</div> <div>Moderators: Ibrahim Elrefaey, Sára Hermochová</div>
11:45	<b>DOMINIK NOVÁK</b> <i>Using Multiparametric Surface Plasmon Resonance to determine the affinity of interaction between antigen and antibody</i>	
12:00	<b>ŠÁRKA BEDNÁŘOVÁ</b> <i>Immobilisation of Tyrosine Protein Kinase Src on Magnetic Microparticles for Myelin Basic Protein Phosphorylation</i>	
12:15	<b>MICHAELA BÁRTOVÁ</b> <i>Biomimetic Copper Complexes</i>	
12:30	<b>PETR RUDOLF</b> <i>Systematic development of LA-ICP-MS method for elemental analysis in organic-rich liquid samples</i>	
12:45	<b>KAROLÍNA KYNCLOVÁ</b> <i>Western Blot assay for Confirmation of Changes in CD44 Receptor Expression in Irradiated Lung-Derived Cells Treated with Hyaluronic Acid Nanoparticles</i>	
13:00	Lunch break	
14:00	<b>IBRAHIM ELREFAEY</b> <i>Investigating the Influence of Several Environmental Stressors on the Degradation of Non-weighted and Weighted Silk</i>	<div>SESSION V</div> <div>Environmental</div>
14:15	<b>ŠPELA POK</b> <i>Acidic emissions from PVC: A potential problem for museums and galleries</i>	

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14:30	<b>TIA KRALJ</b> <i>Fungal Biosorption and Electrochemical Detection of Polystyrene Nanoplastics: Advancing Sustainable Remediation and On-Site Monitoring</i>	<b>SESSION V</b> <b>Environmental Analysis</b> <i>Moderators: Aleksander Kravos, Petr Rudolf</i>
14:45	<b>RASIM OMANOVIĆ</b> <i>Green SiO<sub>2</sub> surface modifications using ethanol extract from valorized fruit waste: enhancing methylene blue adsorption for sustainable water treatment</i>	
15:00	<b>AMAR KARADŽA</b> <i>Comparison of three different conifer species as bioindicators for the assessment of air pollution with metals</i>	
15:15	Coffee break	
15:30	<b>JERNEJ IMPERL</b> <i>Slovenian Dolomites as a Potential Source of Magnesium</i>	<b>SESSION V</b> <b>Environmental Analysis</b> <i>Moderators: Dominik Novák, Emma Paolin</i>
15:45	<b>ANNA WASILEWSKA</b> <i>To control or not to control? Optimization of the process of synthesis of metallic nanoparticles produced by green chemistry</i>	
16:00	<b>NEŽA KRALJ</b> <i>Study of chromophore-containing water-insoluble organic carbon in atmospheric aerosol particles</i>	
16:15	<b>IVAN KONJEVIĆ</b> <i>Electrochemical Impedance Spectrometry for Measuring Surface Tension Decrease on a Mercury Electrode</i>	
16:30	Closing of YISAC 2025	
20:00	Conference dinner Nebo Show Restaurant Tomšičeva ulica 2, 1000 Ljubljana	

# Scientific and social programme of YISAC 2025

**THURSDAY, July 3<sup>rd</sup>, 2025**

LOCATION: National Institute of Chemistry, Hajdrihova ulica 19, Ljubljana, Slovenia

TIME

**from  
10:00**

**City tour**  
National Institute of Chemistry, Ljubljana old town,  
boat ride on Ljubljanica river