



**82. Latvijas Universitātes  
starptautiskā zinātniskā  
konference 2024**

**ĶĪMIJA  
CHEMISTRY**

**Analītiskās un Fizikālās Ķīmijas  
Sekcija  
Section of Analytical and Physical  
Chemistry**

Piektdien, 2024. gada . 9. februārī plkst. 10.15,  
Jelgavas iela 1, 702 aud.

Friday, 9 February 2024, 10.15 AM, room 702  
Jelgavas iela 1.

## Programma/Programme

10.00–10.15	<b>Prezentāciju ievietošana konferences datorā</b>	
<b>Sekciju vadītāji/ Section chairs: Agris Bērziņš; Arturs Vīksna</b>		
10.15–10.20	Atklāšana / Opening	
10.20–10.35	<b>Romāns Pavlenko</b> <i>Faculty of Chemistry, University of Latvia; BIOR</i>	AN OCCURRENCE STUDY OF MYCOTOXINS IN PLANT-BASED BEVERAGES USING LIQUID CHROMATOGRAPHY–MASS SPECTROMETRY  Romans Pavlenko, Zane Berzina, Ingars Reinholds, Iveta Pugajeva
10.35–10.50	<b>Anna Skrastiņa</b> <i>Faculty of Chemistry, University of Latvia; BIOR</i>	PER- AND POLY- FLUOROALKYL SUBSTANCES (PFAS) AND HIGH-RESOLUTION MASS SPECTROMETRY (HRMS) BASED STRATEGIES FOR NON-TARGET SCREENING OF PFAS  Anna Skrastiņa, Dzintars Začs
10.50–11.05	<b>Karina Jevņeviča</b> <i>Faculty of Chemistry, University of Latvia; BIOR</i>	DETERMINATION OF N-(1,3-DIMETHYLBUTYL)-N'-PHENYL-P-PHENYLENEDIAMINE (6PPD) AND ITS DERIVATIVES IN ROAD DUST USING LIQUID CHROMATOGRAPHY - HIGH RESOLUTION MASS SPECTROMETRY  Karina Jevneveica, Ingus Perkons, Dzintars Zacs
11.05–11.20	<b>Taisija Gricenko</b> <i>Faculty of Chemistry, University of Latvia; BIOR</i>	DETERMINATION OF GLYCOALKALOIDS IN POTATOES IN LATVIA  Taisija Gricenko, Romans Pavlenko
11.20–11.35	<b>Laura Lazdiņa</b> <i>Faculty of Chemistry, University of Latvia; BIOR</i>	EVALUATION OF THE CONTENT OF CHEMICAL ELEMENTS IN COMMON BEANS ( <i>PHASEOLUS VULGARIS</i> ) GROWN UNDER CONDITIONS OF DIFFERENT FERTILIZERS  Laura Lazdiņa, Vita Rudoviča, Vitālijs Lazarenko
11.35–11.55	<b>Coffee break, discussions</b>	

11.55–12.10	<b>Lauma Buša</b> <i>Faculty of Chemistry, University of Latvia; AREI</i>	VARIATION OF CARBON AND NITROGEN STABLE ISOTOPE RATIOS IN CONVENTIONALLY AND ORGANICALLY FERTILIZED WHEAT ROOTS AT DIFFERENT GROWTH STAGES  Lauma Buša, Līva Krista Učelniece, Solveiga Maļeckā, Arturs Viksna
12.10–12.25	<b>Jana Švinska</b> <i>University of Latvia; SILAVA;</i>	A COMPARATIVE STUDY ON THE IMPACT OF ARGININE PHOSPHATE FERTILIZATION ON ISOTOPE RATIOS AND ELEMENTAL COMPOSITION IN SCOTS PINE WITHIN LATVIA'S FOREST ECOSYSTEMS  Jana Svinska, Maris Bertins, Sindija Zigure, Lauma Busa, Austra Zusevica, Karlis Dumins, Viktorija Vendina, Toms Arturs Stals, Linda Ansone-Bertina, Dagnija Lazdina, Maris Klavins, Arturs Viksna
12.25–12.40	<b>Māris Bērtiņš</b> <i>Faculty of Chemistry, University of Latvia</i>	POSSIBILITIES TO IMPROVE ELEMENT DETECTION CAPABILITIES IN ICP-MS MEASUREMENT TECHNIQUE  Maris Bertins, Oto Poiss, Agnese Araja, Arturs Viksna
12.40–12.55	<b>Uģis Eismonts</b> <i>Faculty of Chemistry and Institute of Chemical Physics; University of Latvia</i>	ECO-FRIENDLY SYNTHESIS OF MODIFIED IRON FERROCYANIDE SORBENTS FOR ENHANCED CESIUM SORPTION IN RADIOACTIVE FALLOUT SCENARIOS: ADVANCEMENTS IN WATER PURIFICATION AND PERSONAL PROTECTION MEASURES.  Eismonts Uģis, Actins Andris, Saleniece Kristine, Reinholds Ingars, Zekunde Aldis, Kons Artis, Bertins Maris, Avotina Liga, Viksna Arturs, Kizane Gunta, Grinbergs Andrejs
12.55–13.10	<b>Vitālijs Lazarenko</b> <i>Faculty of Chemistry and Institute of Chemical Physics; University of Latvia</i>	Bi <sub>2</sub> Se <sub>3</sub> /SWCNT HETEROSTRUCTURES AS PERSPECTIVE BINDER-FREE ANODE MATERIALS FOR LITHIUM- AND SODIUM-ION BATTERIES  Vitalijs Lazarenko, Raimonds Meija, Yelyzaveta Rublova, Jana Andzane, Arturs Viksna, Donats Erts
13.10–14.10	<b>Pusdienu pārtraukums, diskusijas/Lunch break, discussions</b>	
14.10–14.25	<b>Zhanna Zaurbekova</b> <i>Satbayev University and Institute of Nuclear Physics Almaty, Kazakhstan</i>	ANALYSIS OF GAS RELEASE FROM BIPHASIC LITHIUM CERAMICS PEBBLE BEDS OF VARIOUS PEBBLES SIZES AND CONTENT UNDER NEUTRON IRRADIATION CONDITIONS  Timur Kulsartov, Zhanna Zaurbekova, Regina Knitter, Inesh Kenzhina, Yevgen Chikhray, Asset Shaimerdenov, Saulet Askerbekov, Gunta Kizane, Alexandr Yelishenkov, Timur Zholdybayev
14.25–14.40	<b>Andris Actiņš</b> <i>Faculty of Chemistry, University of Latvia</i>	TRITIUM DIFFUSION THROUGH THE WALLS OF THE PIPE  Elīna Pajuste, Andris Actiņš, Uldis Strautiņš, Aldis Zekunde
14.40-14.55	<b>Anna Ansone</b> <i>Institute of Chemical Physics, University of Latvia</i>	FTIR SPECTROMETRY MEASUREMENT APPROACHES FOR STUDY OF RADIATION-INDUCED EFFECTS IN ADVANCED CERAMIC BREEDER PEBBLES  Anna Ansone, Liga Avotina, Mihails Halitovs, Arturs Zarins

14.55-15.10	<b>Annija Elizabete Goldmane</b> <i>Faculty of Chemistry and Institute of Chemical Physics; University of Latvia</i>	GRADUAL THERMAL TREATMENT ANALYSIS OF BENZANTHRONE  Annija Elizabete Goldmane, Aija Trimdale-Deksne, Liga Avotina, Arturs Zarins, Elena Kirilova
15.10-15.25	<b>Zane Čerpakovska</b> <i>Faculty of Chemistry; University of Latvia</i>	CONTROL OF CAFFEINE : ANTHRANILIC ACID COCRYSTAL POLYMORPH OBTAINED IN MECHANOCHEMICAL SYNTHESIS  Zane Čerpakovska, Agris Bērziņš
15.25-15.40	<b>Aina Semjonova</b> <i>Faculty of Chemistry; University of Latvia</i>	A NEW SOLVATES OF ISONICOTINAMIDE AND ALKYL CARBOXYLIC ACIDS  Aina Semjonova, Artis Kons, Sergey Belyakov, Anatoly Mishnev, Agris Bērziņš
15.40-16.00	<b>Coffee break, discussions</b>	
16.00-16.15	<b>Artjoms Jermakovs</b> <i>Faculty of Chemistry; University of Latvia</i>	CRYSTALLIZATION CONTROL OF PARA-AMINOBENZOIC ACID USING POLYACRYLIC ACID  Artjoms Jermakovs, Aina Semjonova
16.15-15.30	<b>Einārs Sprūģis</b> <i>Institute of Solid State Physics; University of Latvia</i>	Electroconductivity of sulfonated poly(ether ether ketone) composite membranes containing R-imidazolium dimethylphosphate ionic liquids  Einārs Sprūģis, Samanta Homiča, Guntars Vaivars
16.30-16.45	<b>Julija Lukaševiča</b> <i>Institute of Solid State Physics; University of Latvia</i>	EXPLORING NICKEL OXIDE LATTICE DYNAMICS IN A WIDE TEMPERATURE RANGE USING EXAFS SPECTROSCOPY  Julija Lukaševiča, Aleksejs Kuzmins
16.45-17.00	<b>Vitalijs Dimitrijevs</b> <i>Institute of Solid State Physics; University of Latvia</i>	EXAFS SPECTROSCOPY STUDIES OF LATTICE DYNAMICS IN METALLIC CHROMIUM  Vitalijs Dimitrijevs, Aleksejs Kuzmins
17.00-17.15	<b>Aleksandrs Novikovs</b> <i>Institute of Solid State Physics; University of Latvia</i>	PREPARATION OF CsPbBr <sub>3</sub> DOPED WITH THIOCYONATES AND ORGANIC BORATE  Aleksandrs Novikovs, Andrejs Gerbreders, Adriana Mauručaite, Kaspars Pudžs, Boriss Poļakovs
17.15	<b>Noslēgums, diskusijas Conclusion, discussions</b>	