



81st International Scientific
Conference of the
University of Latvia 2023

ĶĪMIJA CHEMISTRY

Analītiskās un Fizikālās Ķīmijas Sekcija Section of Analytical and Physical Chemistry

Piektdien, 2023. gada 17. martā plkst. 9.15,
Jelgavas iela 1, 334 aud.
Friday, 17 March 2023, 9.15 AM, room 334
Jelgavas iela 1, room 334.

Programma/Programme

9.00–09.15	Prezentāciju ievietošana konferences datorā	
Sekciju vadītāji/ Section chairs: Agris Bērziņš; Kristaps Saršūns; Agnese Arāja; Arturs Vīksna		
09.15–09.20	Atklāšana / Opening	
09.20–09.35	Kristaps Saršūns <i>Faculty of Chemistry, University of Latvia</i>	Solid Solutions of Mono and Dihalogen Alkyl Phosphonium Salt Derivatives and Their Photoluminescence Properties Kristaps Saršūns, Igors Kļimenkovs, Meldra Ķemere, Anatolijs Šarakovskis, Agris Bērziņš, Toms Rekis
09.35–09.50	Reinis Kaparkalējs <i>Institute of Solid State Physics, University of Latvia</i>	Use of Raman Spectroscopy to Determine the Quality of Graphene Transferred Onto Sulphonated Poly(Ether Ether Ketone) Membranes Reinis Kaparkalējs, Elīna Pajuste, Jevgēņijs Gabrusenoks, Einārs Sprūģis, Guntars Vaivars
09.50–10.05	Dmitrijs Bogdanovs <i>Institute of Solid State Physics, University of Latvia</i>	Surface Electrochemical and Physical Properties of Ion-conducting Membranes Dmitrijs Bogdanovs, Einārs Sprūģis, Guntars Vaivars
10.05–10.20	Artjoms Jermakovs <i>Faculty of Chemistry, University of Latvia</i>	Screening of Crystallization Additives for Polymorph Control of p-Aminobenzoic Acid Artjoms Jermakovs, Aina Semjonova
10.20–10.35	Kristīne Krūkle-Bērziņa <i>Latvian Institute of Organic Synthesis</i>	Evaluation of Pharmaceutical Active Ingredient Encapsulation Process of Cyclodextrin Based Metal Organic Framework Kristīne Krūkle-Bērziņa, Anatolijs Mishnev
10.35–10.50	Edgars Mamis <i>Institute of Chemical Physics, University of Latvia</i>	Mass-Separation Of ^{44,47} Sc Radionuclides as Molecular Beams at the Cern-Medicis Facility Edgars Mamis, Cyril Bernerd, Eric Chevallay, Bernard Crepieux, Charlotte Duchemin, Patricija Kalnina, Qaiser Khan, Laura Lambert, Elina Pajuste, Maija Radzina, Ralf Rossel, Sebastian Rothe, Thierry Stora

10.50–11.10	Coffee break, discussions	
Otrā daļa/Second part		
11.10–11.25	Romāns Pavļenko <i>Faculty of Chemistry, University of Latvia; BIOR</i>	Occurrence Studies Of Mycotoxins In Plant – Based Beverages Using Liquid Chromatography Mass Spectrometry Romans Pavļenko, Zane Bērziņa, Elena Bartkiene, Vadims Bartkevičs
11.25–11.40	Ance Bārzdiņa <i>Department of Pharmaceutical Chemistry, Riga Stradiņš University</i>	Identification And Characterization Of Fruit Extracts Using Hplc Fingerprinting Method Ance Bārzdiņa, Dace Bandere, Agnese Brangule
11.40–11.55	Krišs D. Labsvārds <i>Faculty of Chemistry, University of Latvia</i>	Evaluation Of Honey Floral Origins Using Volatile Organic Compound Composition Determined By Gas Chromatography–Mass Spectrometry Krišs Dāvids Labsvārds, Ingus Pērkons, Una Briža, Arturs Viksna
11.55–12.10	Megija Neimane <i>Faculty of Chemistry, University of Latvia</i>	Identification Of Ballpoint Pen Ink Components And Its Aging Estimation After Document Were Stored In The Dark Megija Neimane, Vita Rudoviča, Vitālijs Freidenfelds, Antons Podjava
12.10–12.25	Anna Skrastiņa <i>Faculty of Chemistry, University of Latvia; BIOR</i>	Occurrence of antibiotics and antiviral drugs in wastewater from 14 Latvian cities Anna Skrastiņa, Deniss Fedorenko, Arvis Prikulis, Vadims Bartkevičs
12.25–12.40	Deniss Fedorenko <i>Faculty of Chemistry, University of Latvia; BIOR</i>	The Applicability Of The Dilute-And-Shoot Methodology For The Determination Of Several Biomarkers And Pharmaceuticals In Wastewater Using Nanoflow Liquid Chromatography – Orbitrap Mass Spectrometry Deniss Fedorenko, Antons Podjava, Arvis Prikulis, Vadims Bartkevičs
12.40–13.40	Pusdienu pārtraukums, diskusijas/Lunch break, discussions	
Trešā daļa/ Third part		
13.40-13.55	Elina Pasecnaja <i>Faculty of Chemistry, University of Latvia; BIOR</i>	Method Developement For The Determination Of Per- And Polyfluorinated Compounds In Food Elina Pasecnaja, Dzintars Zacs
13.55-14.10	Zane Bērziņa <i>Faculty of Chemistry, University of Latvia; BIOR</i>	Detection Of Mycotoxins And Pyrrolizidine Alkaloids In A Wide Variety Of Nutritional Supplements Using HPLC-MS/MS Zane Bērziņa, Romans Pavļenko, Vadims Bartkevičs
14.30-14.45	Yelyzaveta Rublova <i>Institute of Chemical Physics, Faculty of Chemistry, University of Latvia</i>	The Analysis Of Electrochemical Performance Of Nanostructured Bi ₂ Se ₃ Thin Films As Anodes For Aqueous Rechargeable Lithium-Ion Batteries Vitalijs Lazarenko, Yelyzaveta Rublova, Raimonds Meija, Jana Andzane, Arturs Viksna, Donats Erts
14.45-15.00	Māris Bērtnišs	DEVELOPMENT AND EVALUATION OF IN-HOUSE MATRIX-

	<i>Faculty of Chemistry, University of Latvia</i>	Matched Standards For LA-ICP-MS Analysis Of Tree Rings In Dendrochemistry Research M. Bertins, P. Paiste, L. Ostrovska, A. Ozols, V. Rudoviča, K. Kirsimae, M. Klavins, A. Viksna
15.00-15.15	Māris Bērtiņš <i>Faculty of Chemistry, University of Latvia</i>	Enhancing Trace Element Detection Limits Using ICP-MS In O ₂ Reaction Mode: Implications For Environmental Monitoring And Material Science Irina Shtangeeva, Maris Bertins, Linda Ansone-Bertina, Agnese Brangule, Maris Klavins, Arturs Viksna
15.15-15.30	Jana Švinska <i>Faculty of Chemistry, University of Latvia</i>	The Impact Of Arginine Phosphate-Containing Fertilizer On Growth And Nutrient Content Of Scots Pine And Norway Spruce In Latvian Forests J.Svinska, M. Bertins, L. Busa, S.Zigure, D. Lazdina, K. Dumins, M. Klavins, A. Viksna
15.30-15.45	Laima Pļavniece <i>Faculty of Chemistry, University of Latvia</i>	Characterization Of Concentration Changes Of Aerosol Particles In Indoor Air During The Burning Of Fountain Candles Laima Pļaveniece, Agnese Arāja, Māris Bērtiņš, Gunita Celma
15.45-16.00	Elīze Grencē <i>Faculty of Chemistry, University of Latvia</i>	Extraction Of Ferulic Acid From Organically And Conventionally Grown Wheat Grain Elīza Grencē, Lauma Buša, Solveiga Maļeckā, Kristīne Meile, Arturs Viksna
16.00	Noslēgums, diskusijas Conclusion, discussions	