



CHEMISTRY & CHEMICAL TECHNOLOGY

CONFERENCE 2023 VILNIUS

International Conference
“Chemistry and Chemical Technology 2023”
*Dedicated to 100th anniversary of
Prof. Edvardas Ramanauskas*

Tarptautinė konferencija
„Chemija ir cheminė technologija 2023“
*Skirta profesoriaus Edvardo Ramanausko
100-osioms gimimo metinėms*

CONFERENCE PROGRAMME March 10th, 2023

Time	Presenter	Institution	Title of the Lecture
8:00 – 9:00	Participant registration		
9:00 – 9:10	Opening of the conference. Welcome speech from the Vicerector of Vilnius University Prof. Edita Sužiedėlienė		
9:10 – 9:20	Welcome speech from the Dean of Faculty of Chemistry and Geosciences Prof. Aivaras Kareiva		
Part I (in Lithuanian). Let's Remember the Professor Edvardas Ramanauskas Chairperson Assoc. Prof. Lina Mikoliūnaitė			
9:20 – 9:40	Prof. Jurgis Barkauskas	Vilnius University, Lithuania	Prisiminimai mokinio akimis <i>Memories through the Eyes of a Student</i>
9:40 – 10:00	Prof. Rimantas Ramanauskas	Center for Physical Sciences and Technology, Lithuania	Prisiminimai apie tėvą <i>Memories of Father</i>
10:00 – 10:20	Prof. Ingrida Ancutienė	Kaunas University of Technology, Lithuania	Analizinė chemija Kauno technologijos universitete: nuo ištakų iki dabar <i>Analytical Chemistry at Kaunas University of Technology: from the Beginning to the Present</i>
10:20 – 10:40	Prof. Vladas Algirdas Bumelis	Lithuanian Academy of Sciences, Lithuania	Analizinės chemijos katedros alumnų prisiminimai <i>Memories of an Alumnus of the Department of Analytical Chemistry</i>
10:40 – 11:00	Antanas Marcinonis	Company “Grotą”, Lithuania	Analizinės chemijos svarba hidrogeologijoje <i>Importance of Analytical Chemistry in Hydrogeology</i>
11:00 – 11:20	Dr. Olga Kizinievič	Vilnius Tech, Lithuania	Komunalinių kietųjų atliekų deginimo lakiųjų pelenų poveikis deginto molio medžiagų struktūrai <i>Effect of Municipal Solid Waste Incineration Fly Ash on the Structure of Fired Clay Materials</i>
11:20 – 11:40	Coffee Break		



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Part II. Oral Presentations (in English) Chairperson Dr. Jurga Juodkazytė			
11:40 – 12:00	Prof. Ivo Leito	University of Tartu, Estonia	Unified pH – What, Why and How?
12:00 – 12:20	Prof. Markku Leskelä	University of Helsinki, Finland	Area Selective Deposition – The New Challenge in Atomic Layer Deposition
12:20 – 12:40	Prof. Edvinas Orentas	Vilnius University, Lithuania	Supramolecular Chemistry of Hydrogen-Bonded Tubular Assemblies
12:40 – 13:00	Prof. Donats Erts	University of Latvia, Latvia	Bi ₂ Se ₃ Thin Films and Bi ₂ Se ₃ /SWCNT Heterostructures as a Perspective Anode for Lithium-Ion Batteries
13:00 – 13:20	Prof. Juozas Gražulevičius	Kaunas University of Technology, Lithuania	Organic Semiconductors for Optoelectronic Devices and Sensors
13:20 – 14:20	Lunch Break		
Chairperson Prof. Artūras Katelnikovas			
14:20 – 14:40	Dr. Mariana Emilia Ghica	University of Coimbra, Portugal	Electrochemistry: a Powerful Tool for Synthesis and Characterization of Nanomaterials
14:40 – 15:00	Prof. Daumantas Matulis	Vilnius University, Lithuania	Searching for Principles of Protein-Ligand Recognition by Varying Protein or Compound Structure
15:00 – 15:20	Dr. Anna Wrona-Piotrowicz	University of Lodz, Poland	Essential Oils and Their Use in the Cosmetics Industry
15:20 – 15:40	Prof. Torben René Jensen	Aarhus University, Denmark	Chemistry – the Key to Novel Solid State Batteries
15:40 – 16:00	Dr. Ieva Uogintė	Center for Physical Sciences and Technology, Lithuania	Micro/Nano Plastics as a New Emerging Concern: from the Environment to Human Health
16:00 – 16:20	Prof. Gintaras Denafas	Kaunas University of Technology, Lithuania	Microplastics in the Products of Waste Biological Treatment
16:20 – 16:40	Dr. Andris Anspoks	University of Latvia, Latvia	X-ray Absorption Spectroscopy in Physics, Material Science and Chemistry
16:40 – 17:40	Coffee Break and Poster Session (Chairperson Assoc. Prof. Živilė Stankevičiūtė)		
18:00	Conference Gala Dinner (Universiteto St. 3)		

POSTER SESSION
March 10th, 2023
16:40 – 17:40

Number	Presenter	Title of the Presentation
P 001	Anastasija Afonina	Low-Temperature Synthesis of Magnesium Whitlockite Nanopowder Under Static and Rotating Conditions
P 002	Kazimieras Anusevičius	Synthesis of N-[3-(Hydrazinecarbonyl)-4-hydroxyphenyl]acetamide Derivatives
P 003	Rūta Aukštakojytė	Effect of B- and N-Codoping on the Structural and Morphological Properties of Reduced Graphene Oxide
P 004	Migle Babelyte	Thermoresponsive Properties of Chitosan-graft-poly(N-isopropylacrylamide) Copolymers
P 005	Renata Baranauskienė	Aroma Profile and Total Phenolics of Hop Cones and Pellets
P 006	Sandra Barysaitė	Electronic Excited States of Chlorophylls in Photosynthetic Complex CP29
P 007	Martynas Rojus Bartkus	Synthesis and Evaluation of Optical Properties of New Conjugated 3H-Indole Moiety Possessing Systems
P 008	Monika Baublytė	Multifunctional Wood – Properties of GdPO ₄ ·H ₂ O:Eu ³⁺ Doped Wood
P 009	Raminta Beresneviute	Wide Bandgap Lead Perovskite Solar Cells with Monomolecular Layer from Viewpoint of PTAA Band Bending
P 010	Raminta Beresneviute	3-(N,N-Diphenylamino)carbazole Acceptor Containing Bipolar Derivatives as TADF Emitters for OLED Devices
P 011	Dovydas Blaževičius	Central Benzophenone Fragment Having Solution Processable Derivatives as Bipolar Hosts for Green TADF OLEDs
P 012	Raimonda Boguzaitė	Polypyrrole Modifications with Methylene Blue
P 013	Ernestas Brazys	Evaluation of the Interaction Between SARS-CoV-2 Spike Glycoproteins and the Molecularly Imprinted Polypyrrole
P 014	Darius Budrevičius	Improvement of Luminescent Properties of GdPO ₄ Doped with Europium
P 015	Zhu Chengjie	Biomass Fly Ash-Based Alkali-Activated Materials
P 016	Urte Cigane	Vibration Application for Porous AAO Membrane Synthesis
P 017	Šarūnė Daškevičiūtė-Gegužienė	Passivating Defects of Perovskite Solar Cells with Functional Donor-Acceptor-Donor Type Hole Transporting Materials
P 018	Eglė Didžiulytė	Analysis and Usage Perspectives of Solid Digestate
P 019	Karolina Dzedulionytė	From Natural Products to Synthetic Analogues: Pyrrole-Pyrazole Exchange in Lamellarin O
P 020	Marius Dzvinka	Analysis of Europium-Doped Sodium Aluminum Germanate
P 021	Eglė Ežerskytė	Well-Defined GdPO ₄ :Eu ³⁺ Nanophosphors for Assessment of Environmental Toxicity
P 022	Justina Gaidukevič	A Dopamine Electrochemical Sensor Based on Reduced Graphene Oxide Obtained by the Laser-Induced Reduction Method
P 023	Roberta Gelminauskaitė	Synthesis of Novel N-(4-Hydroxyphenyl)-β-alanine Derivatives
P 024	Božena Golcienė	Synthesis of Novel N-(4-Acetylphenyl)imidazole and Dihydropyrimidine Derivatives
P 025	Rugilė Grabauskaitė	Isolation of Hydrophilic Fractions from Defatted Strawberry, Blackberry and Elderberry Seeds and Rowanberry Pomace by Pressurized Liquid Extraction
P 026	Birutė Grybaitė	Synthesis of Novel Functionalized N,N-Disubstituted Aminothiazoles
P 027	Rūta Gruškienė	Iron Oxide Magnetic Nanoparticles Functionalized by Nisin

P 028	Goda Gudinskaitė	Possibilities of Using Non-Traditional Raw Materials for Fertilizer Production
P 029	Greta Inkraitaitė	Effect of Different Amounts of Cr ³⁺ and B ³⁺ Ions on the Luminescence Properties of LuAG
P 030	Gabija Janušauskaitė	Synthesis and Luminescent Properties of Eu ³⁺ , Dy ³⁺ , Bi ³⁺ -Doped Sodium Aluminum Germanate NaAlGeO ₄ Phosphors
P 031	Andrius Jaskūnas	Catalytic Activity of Mixed Cu, Co and Cr Oxide Catalysts
P 032	Laura Jūrienė	Fractionation of Lipophilic Components of Chokeberry Pomace by Innovative Extraction Technique
P 033	Eimutis Juzeliūnas	Catalytic Hydrogen Evolution Reaction on a Composite p-Si/Al ₂ O ₃ /Ni Photoelectrode
P 034	Liisa-Maria Kaljusmaa	Finding Potential Phase Change Materials Among Ionic Liquids with The Aid of Machine Learning Model
P 035	Aivaras Kareiva	On the Synthesis of New Y _{3-x-y-z} Ca _x Li _y Ce _z Ga ₅ O ₁₂ Garnets
P 036	Dovydas Karoblis	Molten Salt Synthesis of REMnO ₃ (RE – Y, Er, Tm, Yb) Manganites
P 037	Vytautas Kavaliauskas	Investigation of Hexafluoroisopropanol-Based Aqueous Biphasic System
P 038	Paulina Kaziukonytė	Synthesis of 5-(2,4-Dihydroxyphenyl)imidazole Derivatives as Potential Hsp90 Inhibitors
P 039	Gabrielė Klydžiūtė	Influence of Hydrothermal Synthesis Parameters on the Properties of Calcium Hydroxyapatites
P 040	Vytautas Klimavičius	Garnets as Systems for Endogenous Dynamic Nuclear Polarization (DNP)
P 041	Klaudija Krasauskaitė	The Interaction of Monoammonium Phosphate with Zinc Sulphate and Starch Solutions
P 042	Gintarė Kručaitė	3,6-Diarylcarbazoles for Hole Transporting Layers of SOLAR Cells
P 043	Evaldas Kvietkauskas	Synthesis and Characterization of Unsaturated Polyesters Modified with Malic Acid and PDMS for Tissue Engineering Applications
P 044	Dovilė Liudvinavičiūtė	Investigation and Properties of Complexes of Anthocyanins and Cross-Linked Pectin or Sodium Alginate
P 045	Miglė Liudžiūtė	Quantitative Analysis of Cadmium Telluride-Cadmium Sulphide Layers on Polyamide 6
P 046	Jonas Luneckas	Properties of Starch Modified with Dodecenylsuccinic Anhydride and Acetic Anhydride
P 047	Simas Macionis	Modified 1,2-Diphenylbenzimidazole Materials for Green and Sky-Blue Emission OLEDs
P 048	Greta Mačiūitytė	Synthesis of Substrates for the Investigation of PmlABCDEF Monooxygenase Selectivity
P 049	Goda Masionė	Optimisation of Factors Affecting the Electrospinning for Prediction of the Morphology of Biobased Poly(butylene succinate) Nanofibrous Mats
P 050	Šarūnas Masys	The Surfaces of Nanodiamonds: A Modeling Perspective
P 051	Tadas Matijošius	Antifrictional Effect on Dyeing of Anodic Coatings Impregnated with Fillers
P 052	Urtė Milerytė	Introduction of Benzyl Substituents to Resorcinol Moiety in Search for N-Domain HSP90 Inhibitors
P 053	Tamari Mumladze	Current Challenges in the Solvent-Based Multilayer Composite Waste Recycling
P 054	Marius Navickas	Transient Absorption Spectroscopy of Photochemical Reactions in Different Photoinitiators
P 055	Vesta Navikaite-Snipaitiene	Synthesis of Chitosan-graft-poly(N-isopropylacrylamide) Copolymers
P 056	Elizabeth Onokwai	Life-Cycle Assessment of CO ₂ Mineralization Product: Comparing Magnesia Cement and Portland Cement

P 057	Maria-Anthoniette Onoriode-Afunezie	Synthesis and Application of TiO ₂ Nanotube Arrays for Treatment of Pharmaceuticals in Model Wastewater
P 058	Andrius Pakalniškis	Effects of Sol-Gel Synthesis Procedure Conditions on The Stability of Polar Active Hexagonal Phase in LuFeO ₃ -LuMnO ₃ System
P 059	Neringa Petrasauskiene	Effect of Deposition Cycles on the Properties of Copper Sulfide Thin Films Deposited by CBD
P 060	Gailė Pocevičiūtė	Application of Capillary Flow Porometry to Predict the Filtration Efficiency of Nanofibrous Polymer Membranes
P 061	Odeta Pocienė	Polyvinyl Acetate as Binder in the Formation of Granules of Buckwheat Husk Ash
P 062	Ernest Potapov	Synthesis of Microcapsules Containing Polyaspartic Acid Ester within UV Curable Shell
P 063	Guoda Pranaitytė	Synthesis of Novel 1-(2,4-Difluorophenyl)-5-oxopyrrolidine-3-carboxylic Acid Derivatives
P 064	Vaidas Pudžaitis	Electrochemical SEIRAS Analysis of Imidazole Ring Functionalized Self-Assembled Monolayers
P 065	Aiste Pupiute	Fibrous Polycaprolactone-Based 3D Scaffolds for In Vitro Cell Models
P 066	Ruta Raiseliene	Synthesis and Investigation of Biphasic Calcium Phosphate Granules
P 067	Simonas Ramanavičius	Tunable Properties of Ti ₃ C ₂ T _x MXenes 2D Structures for Applications in a Surface Enhanced Raman Spectroscopy
P 068	Gabrielė Rankelytė	Excited States of Chlorophyll Molecules in Light-Harvesting Antenna of PSI
P 069	Pamela Rivera	Effect of Mn ⁺² Doping on the Formation and Properties of BiVO ₄ Coatings
P 070	Dovilė Rubinaite	Role of Water Vapour Pressure in the Carbonation Process of Calcium Monosulfoaluminate 12-Hydrate
P 071	Birutė Sapijanskaitė-Banevič	Synthesis of New 1-(9-Ethylcarbazol-3-yl)-5-oxopyrrolidine-3-carbohydrazide Derivatives
P 072	Emilija Skuodaitė	Investigation of the Changes in Structural and Optical Properties of Ag-O/PET/PVC Composites after Aging
P 073	Ignė Stebrytė	Effect of Titanium Oxide on the Formation of Hydroxyapatite under Microwave Synthesis Conditions
P 074	Barua Sukomol	Bimetallic Nickel-Manganese/Titanium Electrocatalyst for Efficient Hydrogen Evolution Reaction
P 075	Iryna Sulym	Structural Properties of MWCNTs@PDMS-1000 Nanocomposites
P 076	Rugilė Surblyte	Microwave Synthesis of Hydroxyapatite Substituted with Zn ²⁺ Ions in the Temperature Range of 80 - 200°C
P 077	Evelina Svedaite	Adsorption of Phosphate Ions by CSH (CaO/SiO ₂ =1.5) Adsorbent
P 078	Aida Šermukšnytė	Design of 5-Substituted 2-Oxindole-hydrazone Derivatives Bearing 1,2,4-Triazole-3-thiol Moiety as Anticancer Agents
P 079	Agnė Šleiniūtė	Delamination of Multilayer Composite Packaging Waste by HNO ₃ and Its Analysis with MODDE Software
P 080	Daiva Tavgeniene	Di(arylcarbazole) Substituted Oxetanes as Efficient Hole Transporting Materials with High Thermal and Morphological Stability for OLEDs
P 081	Daiva Tavgeniene	Perovskite Solar Cells with Monolayer Modified PTAA and Its Application to All-Perovskite Tandem Solar Cells
P 082	Davit Tediashvili	Chemical and Electrochemical Stability of Vanadium-Based Cathodes for Aqueous Na-Ion Batteries
P 083	Eglė Ūsovienė	Copper Sulfide-Based Anode Materials for Sodium-Ion Batteries
P 084	Klaudija Vaičiukynaitė	Study of the Quantitative Composition of the Cobalt Sulfide Layers on the Polyamide 6 Surface

P 085	Rokas Vaitkus	Synthesis and Antioxidant Activity of 4-Amino-5-(2-((2-methylquinolin-6-yl)amino)ethyl)-2,4-dihydro-3H-1,2,4-triazole-3-thione
P 086	Vytautas Valentinas	Screening and Identification of Microorganisms that Degrade Oil Products
P 087	Melita Veikšaitė	Synthesis of N-Heterocycle-Fused Tetrahydro-1,4-diazepinones
P 088	Kamilė Venskūnaitė	4-(Cycloalkyl)-6-(1-(4-substituted)-1H-imidazol-5-yl)benzene-1,3-diols and 4-(Cycloalkyl)-6-(5-(4-methoxyphenyl)-1,2,3-thiadiazol-4-yl)benzene-1,3-diols Synthesis
P 089	Povilas Virbickas	Glucose Oxidase Inhibition-Based Hg ²⁺ Ion Biosensor
P 090	Diana Vištorskaja	Sol-Gel Synthesis and Characterization of Novel Garnets with Various Stoichiometric Compositions
P 091	Edita Zubrytė	Wastewater Treatment of Spent Dyeing Bath Using Ion Exchange and Activated Carbon Adsorbents
P 092	Albinas Žilinskas	Application of Crude Animal Origin Extracts in the Aldol Reactions for the Synthesis of Chiral Bicyclic Compounds
P 093	Vytautas Žutautas	Conducting Polymer Modified Laser-Induced Graphene Usage For pH Sensing
P 094	Mantas Žvirblis	Amyloid Aggregation Suppression and Carbonic Anhydrase Inhibition with Fluorinated Benzenesulfonamides
P 095	Raimundas Šiaučiūnas	Carbonated Rankinite Binder from JSC Akmenes Cementas Raw Materials