

EcoBalt2025 PROGRAMME

October 8 th	
9.00 – 12.30	Registration
10.00 – 12.45	Workshops: • Topic: Microplastics Analysis: Techniques and Insights • Topic: Detecting Pharmaceuticals in Wastewater: Challenges and Innovations
13.00 – 13.30	Opening ceremony
13.30 – 15.00	Session I
15.00 – 15.20	Coffee break
15.20 – 16.55	Session II
17.00 – 18.30	Welcome reception (FTMC)
October 9 th	
8.00 – 9.00	Registration
9.00 – 11.00	Session III
11.00 – 11.20	Coffee break
11.20 – 12.30	Session IV
12.30 – 14.00	Lunch
14.00 – 16.00	Poster session & Coffee Break
16.00 – 17.25	Session V
19.00 – 22.00	Conference Gala dinner (NERINGA, Gediminas Ave. 23)
October 10 th	
8.45 – 9.00	Registration
9.00 – 11.35	Session VI
11.35 – 12.00	Coffee break
12.00 – 13.20	Closing of the Conference Award for Best Poster (3 nominees)

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October 8th

9.00 – 12.30 Registration

10.00 – 12.45 Workshops:
Topic: Microplastics Analysis: Techniques and Insights
Topic: Detecting Pharmaceuticals in Wastewater: Challenges and Innovations

OPENING CEREMONY (FTMC A101)

13:00 – 13.10 Welcome speech from the director of Center for Physical Science and Technology
Dr. Ramunas Skaudzius

13.10 – 13.20 Welcome speech from **Prof. Habil. Dr. Aivaras Kareiva** the chairperson of EcoBalt2025 Scientific Committee

13.20 – 13.30 Information from **Dr. Arunas Stirke** the chairperson of the Organizing Committee

SESSION I (FTMC A101) — Chairperson dr. Arunas Stirke

Time	Presenter	Institution	Title of the lecture
13.30 – 14.15	Keynote speaker Dr. Monika Mortimer	National Institute of Chemical Physics and Biophysics, <i>Estonia</i>	Environmental safety and functionality assessment of novel nanocomposites
14.15 – 14.50	Invited speaker Prof. Arturs Viksna	University of Latvia, <i>Latvia</i>	Evaluation of the floral origin of honey using instrumental methods for honey collected in Latvia

15.00 – 15.20 Coffee break

SESSION II (FTMC A101) — Chairperson dr. Monika Mortimer

Time	Presenter	Institution	Title of the lecture
15.20 – 15.45	Invited speaker Dr. Inna Melnyk	Institute of Geotechnics Slovak Academy of Sciences, <i>Slovakia</i>	Multifunctional silica nanostructures for advanced water treatment and environmental monitoring
15.45 – 16.10	Invited speaker Egidijus Machtejevas	Merck, <i>Germany</i>	Surviving the challenge: high-efficiency chromatography for wastewater analysis
16.10 – 16.25	Emilija Mockute	Kaunas Technology University, <i>Lithuania</i>	Assessing the efficiency of PFAS elimination via quaternary stage wastewater treatment
16.25 – 16.40	Eleander Owusuwaa	University of Environment and Sustainable Development, <i>Ghana</i>	Arsenic contamination in groundwater of the tano, pra, and Ankobra river basins in Ghana: a machine learning-based hazard assessment

17.00 – 18.30 Welcome reception (FTMC Hall)

October 9th

8.00 – 9.00 Registration

SESSION III (FTMC A101) — Chairperson Dr. Wanessa Melo

Time	Presenter	Institution	Title of the lecture
9.00 – 9.45	Keynote speaker Prof. Jonas Baltrusaitis	Lehigh University, <i>USA</i>	Sustainable by design: novel agricultural materials via active ingredient cocrystalization
9.45 – 10.30	Keynote speaker Assoc. Prof. Karin Habermehl-Cwirzen	University of the Faroe Islands, <i>The Faroe Islands</i>	Mechano-chemical activation of faroese rocks and recycled concrete for use in sustainable concrete
10.30 – 11.00	Invited speaker Prof. Jekabs Grins	Stockholm University, <i>Sweden</i>	X-ray powder diffraction studies of Co-free and Li-rich layered Li-Mn-Ni-Al-O cathode materials

11.00 – 11.20 Coffee break

SESSION IV

Time	Presenter	Institution	Title of the lecture	Presenter	Institution	Title of the lecture
	FTMC (A101) Chairperson Assoc. Prof. Karin Habermehl-Cwirzen				VU LSC (R401) Chairperson dr. Kotryna Cekuolyte	
11.20 – 11.45	Invited speaker Dr. Agnieszka Gladysz-Plaska	Maria Curie-Skłodowska University in Lublin, <i>Poland</i>	Sorption properties of modified natural sorbents toward uranium and thorium: from structure to mechanism	Invited speaker Dr. Anna Lukowiak	Institute of Low Temperature and Structure Research, <i>Poland</i>	Development of luminescent bioactive glasses via conventional and sustainable synthesis methods for medical applications
11.45 – 12.00	Austeja Burbulyte	Center for Physical Sciences and Technology, <i>Lithuania</i>	Investigation of polyethylene microplastics and lignin nanomaterials sorption dependence on various parameters	Dariusz Dziga	Jagiellonian University, <i>Polska</i>	Freshwater cyanobacteria and cyanophages – complex interplay that impacts aquatic ecosystems
12.00 – 12.15	Agnieszka Lipke	Vilnius University, <i>Lithuania</i>	Investigations of the sorption mechanism of Cr(VI) ions on layered double hydroxides	Raminta Skipityte	Lithuanian Research Centre for Agriculture and Forestry, <i>Lithuania</i>	Soybean cultivation in cold climates: isotopic insights into inoculation efficiency

12.15 – 12.30	Aleksandra Strach	University of Silesia in Katowice, <i>Poland</i>	Modern nanofiltration technologies for eliminating heavy metals from the environment	Remo Merijs-Meri	Institute of Chemistry and Chemical Technology, <i>Latvia</i>	Aquatic biomass as sustainable source for development of green composites
12.30 –14.00	LUNCH (FTMC Hall)					
14.00 – 16.00	POSTER SESSION & Coffee Break					
SESSION V						
Time	Presenter	Institution	Title of the lecture	Presenter	Institution	Title of the lecture
	FTMC (A101) Chairperson prof. Arturs Viksna			VU LSC (R401) Chairperson dr. Giedrius Trakimas		
16.00 – 16.25	Invited speaker Prof. Mateusz Dulski	University of Silesia, <i>Polska</i>	Tailored SBA-15 for effective silver sorption in polluted environments	Invited speaker Prof. Natalia Tintaru	Moldova State University, <i>Moldova</i>	Sustainable electrochemical engineering: from catalysis to recovery
16.25 – 16.40	Danylo Merzhyievskiyi	National Institute of Chemical Physics and Biophysic, <i>Estonia</i>	Gold-based deferoxamine nanocomposites for iron(III) binding	Anastasia Hiskia	NCSR Demokritos, <i>Greece</i>	Cyanobacterial toxins and bioactive metabolites in freshwater resources, and their fate during advanced water treatment
16.40 –16.55	Andrejs Krauklis	Latvia University of Life Sciences and Technologies , <i>Latvia</i>	Modular modeling methods for simulating material – environment interactions	Alla Khosrovyan	National Institute of Chemical Physics and Biophysics, <i>Estonia</i>	Ecosystem-level impacts of plastic pollution in the environment
16.55 –17.10	Durre Nayab Habib	Center for Physical Sciences and Technology, <i>Lithuania</i>	Isotopic composition of aerosols from controlled biomass burning	Sampson Akwasi Kennie Wayoe	Vilnius University, <i>Lithuania</i>	Antibiogram of bacteria isolated from poultry birds in Ghana
17.10 – 17.25	Tomas Stonkus	Center for Physical Sciences and Technology, <i>Lithuania</i>	Characterization of microplastics in indoor air of Lithuanian educational institutions	Viktorija Liustrovaite	Center for Physical Sciences and Technology, <i>Lithuania</i>	Electrochemical biosensing of viral proteins using electrodes modified with gold nanostructures
19.00 – 22.00	Conference Gala dinner (NERINGA, Gediminas Ave. 23)					

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October 10th

8.45 – 9.00 Registration

SESSION VI (FTMC A101) — Chairperson dr. Agne Masalaite-Nalivaike

Time	Presenter	Institution	Title of the lecture
9.00 – 9.45	Keynote speaker Dr. Darius Ceburnis	University of Galway, <i>Ireland</i>	Organic matter cycling in marine atmosphere: primary versus secondary aerosol sources and cloud interactions

Time	Presenter	Institution	Title of the lecture	Presenter	Institution	Title of the lecture
	FTMC (A101) Chairperson Prof. Mateusz Dulski			VU LSC (R401) Chairperson dr. Wanessa Melo		
10.00 – 10.25	Invited speaker Prof. Gunnar Svensson	Stockholm University, <i>Sweden</i>	Co-free Li ₂ MnO ₃ – Li(Ni _{0.5} Mn _{0.5})O ₂ cathode materials studied in the COBRA EU-project	Invited speaker Prof. Henrikas Cesiulis	Vilnius University, <i>Lithuania</i>	Scalling-up precious metals recovery from secondary raw materials in eco-friendly way for SMEs
10.25 – 10.50	Invited speaker Prof. Piotr Pietrzyk	Jagiellonian University, <i>Poland</i>	Combining radicals and electroprotic reactions to boost the catalytic activity of hybrid oxide materials in advanced oxidation processes	Ivo Leito	University of Tartu, <i>Estonia</i>	Excellence in analytical chemistry: a joint master's programme
10.50 – 11.05	Ingus Perkons	Institute of Food Safety, Animal Health and Environment "BIOR", <i>Latvia</i>	In-source chloride ion formation: a key to decoding polychlorinated alkanes	Mahrosh Javed	Center for Physical Sciences and Technology, <i>Lithuania</i>	Application of chitosan-graphene oxide and cellulose-graphene oxide nanocomposites for the removal of polyethylene terephthalate, polyethylene, polystyrene nanoplastics from fresh water
11.05 – 11.20	Jardi Jacas Biendicho	Catalonia Institute for Energy Research, <i>Spain</i>	Strategies to enhance the performance of the LNMO cathode for generation 3b Li-ion batteries	Sonata Pleskyte	Center for Physical Sciences and Technology, <i>Lithuania</i>	Photocatalytic degradation of LDPE mulch films using ag-TiO ₂ nanomaterials: the role of LDPE film size and color

11.20 – 11.35	Agne Minderyte	Center for Physical Sciences and Technology, <i>Lithuania</i>	Short-term impacts of fireworks and bonfires on urban aerosol characteristics	Abdullah Jan Frogh	Veer Narmad South Gujarat University, <i>India</i>	A study of the management of e-waste: challenges and opportunities in Surat
11.35 – 12.00	Coffee break					
12.00 – 12.20	Closing of the Conference (FTMC A101) Award for Best Poster (3 nominees)					

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POSTER SESSION

POSTER SESSION October 9th 14.00 – 16.00				
Poster No.	Name	Surname	Country	Title
P1	Violetta	Umerenkova	Estonia	Fast Reaction Yield Monitoring by CE Analysis of Dicarboxylic Acids in Kerogen Valorization Process
P2	Kriss Davids	Labsvards	Latvia	Antimicrobial Activity of Latvian Honey of Different Floral Origins and Polyphenol Profile
P3	Annabel	Taniel	Estonia	Pectin Extraction and Characterization from Different Biomasses
P4	Laura	Lazdina	Latvia	Screening of C10-17 Polychlorinated Alkanes in Oils by Gas Chromatography-Tandem Mass Spectrometry
P5	Dmitrijs	Vorobjovs	Latvia	Chemical Composition of Crystalline Basement Iron Ores from the Staicele and Garsene Deposits
P6	Valerija	Kudrjavceva	Latvia	Effect of Birch Sawdust Treatment on the Chemical Properties of Soda Lignin and the Yield of Biorefinery Products Obtained Through Sawdust Delignification.
P7	Cecylia	Wardak	Poland	Towards Improved Measurement Quality: A Novel Concept in Potentiometric Sensors Design
P8	Vilma	Olsauskaite	Lithuania	Hexafluoroisopropanol/Acetonitrile-Based Liquid-Liquid Microextraction for the HPLC Determination of Cationic Dyes in Water Samples
P9	Cecylia	Wardak	Poland	Effect of Type of Electrode Substrate on the Properties of Solid Contact Ammonium Ion-Selective Electrodes – Comparative Studies
P10	Maab	Elsheikh	Lithuania	Bioactive Calcium-Deficient Hydroxyapatite-Propolis Composites
P11	Maris	Bertins	Latvia	Modified Bentonite Clay Sorbents for Simulated Removal of Radionuclides from Water
P12	Justina	Gaidukevic	Lithuania	Synthesis and Investigation of Novel Graphene Oxide/Calcium-Deficient Hydroxyapatite Composites for the Electrochemical Determination of Dopamine

P13	Guste	Rudaityte	Lithuania	Stabilization Strategy for Copper-Based Paints on Paper Media
P14	Malgorzata	Grabarczyk	Poland	Simultaneous Adsorptive Stripping Voltammetric Determination of Bismuth(III) and Indium(III) using Cupferron as Complexing Agent – Application to Environmental Water Samples
P15	Ruta	Rasike	Lietuva	Dual Sensing of Dopamine and Uric Acid with a Phosphorus-Modified rGO Electrochemical Electrode
P16	Malgorzata	Grabarczyk	Poland	Effect of the Number of Hydroxyl Groups in the Molecules of Selected Flavonoids on Their Solubility in Polar Solvents
P17	Saqib	Alirasike	Lithuania	Mxene-Based Colorimetric Sensor for Rapid Detection of Pharmaceutical in Aquatic Ecosystem
P18	Aswathi	Raveendran	Lithuania	The Use of Functionalised Mxenes in Organic Dye Removal and Environmental Remediation
P19	Mehri	Davtalab	Lithuania	Spatial Effects of Built-Up Landscape Pattern and Green Infrastructure on PM _{2.5} Concentrations Using Machine Learning
P20	Daria	Pashneva	Lithuania	Surface Ozone Trend at Preila, Lithuania
P21	Krzysztof	Jurek	Poland	Application of the Rayleigh Equation in Studying PAHs Emissions During Coal Waste Self-Heating
P22	Greta	Inkrataite	Lithuania	Modulation of Luminescence in Praseodymium Doped LuAG and GAG by Boron Co-Doping
P23	Lina	Davulienė	Lietuva	Air Quality Dynamics in Urban School Near Busy Road
P24	Beatrice	Kulikauskaite	Lithuania	Application of Electrically Conductive Polymers in Bioelectronic Devices
P25	Agnese	Araja	Latvija	Heavy Metal Contamination in E-Waste Recycling: An Analysis of Airborne and Dust-Borne Particulates
P26	Viachaslau	Alifirenka	Lithuania	Source Apportionment of Aerosol Particles by Positive Matrix Factorization in Urban Background Environment (Vilnius, Lithuania)
P27	Skirmante	Tutliene	Lithuania	Influence of Czochralski Method Parameters on LiF Single Crystal Quality

P28	Laurynas	Bucinskas	Lithuania	Distinct Isotopic Signatures Indicate Shifts in Sulfur Emission Sources
P29	Abdullah	Khan	Lithuania	Evaluating Green Infrastructure for Mitigating Microplastics Pollution in Urban Air
P30	Giedre	Gaidamaviciene	Lithuania	Structural and Physicochemical Investigation of Sr ²⁺ Substituted LAMOX Ceramics Prepared by Aqueous Sol-Gel Method for SOFC Electrolyte Applications
P31	Nerija	Rickute	Lithuania	Study of Luminescence Properties of Cr ³⁺ and Ce ³⁺ Co-Doped YLuAG
P32	Steigvile	Bycenkiene	Lithuania	Characterization of Airborne Microplastics in Indoor and Outdoor School Environments
P33	Santa	Reksna	Latvia	Exploring Realtime Greenhouse Gas Monitoring in Latvian Ports Vicinity
P34	Kristina	Striele	Lithuania	NSAID Residues in Water Bodies of Lithuania Near Outlets of Wastewater Treatment Plants
P35	David	Gonzalez	Estonia	How Metal Pollution Affects Antimicrobial Resistance in Droplets
P36	Tomas	Jambor	Slovakia	Relevance of Acetamiprid in Relation to Morphological Changes in 3D – Leydig Cells Cultures In Vitro
P37	Agne	Vailionyte	Lithuania	Aged LDPE Micro(nano)Plastics Trigger Epithelial-To-Mesenchymal Transition in Human Bronchial Epithelial Cells
P38	Izabela	Krzeminska	Poland	Role of Bacterial Exopolymers in Microalgal Biomass Production and Accumulation of Metabolites
P39	Katerina	Novaka	Latvia	Investigation of Cesium Sorption Kinetics on Prussian Blue-Modified Cellulose Textile for use in Radiological Decontamination
P40	Simona	Bartkova	Estonia	Microplastics And Microbes: Exploring Aggregation and Antibiotic Susceptibility in Microdrops
P41	Artis	Kons	Latvia	Sorption of Cesium and Cobalt Ions on Hybrid Prussian Blue-Based Sorbents
P42	Ilona	Juvonen	Finland	Biocompatibility Testing of Metal-Phenolic Networks for Environmental Applications

P43	Juris	Burlakovs	Latvia	Microparticles in Waste Fine Fraction
P44	Galina	Lujaniene	Lithuania	Magnetic Nanocomposites for Adsorption of Nanoplastics from Water Samples
P45	Skaiste	Dreskiene	Lietuva	Towards Optimizing Microplastic Extraction from Soil: How Selected Chemicals Affect Mulch Film Plastics
P46	Galina	Lujaniene	Lithuania	Adsorption of Cobalt and Europium on Polyethylene Terephthalate and Polystyrene Nanoplastics
P47	Sergej	Semcuk	Lithuania	Ecotoxicology Studies of Nano-Magnetite-Chitosan Composite using the Danio Rerio as a Test Organism
P48	Anton	Kovacik	Slovakia	Cell Cultures vs Explant Tissues in Fish Ecotoxicology Studies
P49	Elzbieta	Jursene	Lithuania	Significance of Thermal Analysis in Understanding the Formation of Calcium Hydroxyapatite P Malachite Green Composite Materials
P50	Jolita	Jablonskiene	Lithuania	Synthesis of High-Performance Multifunctional Electrode Material Using Sweetwood Lignin as a Precursor for Supercapacitors Application
P51	Gabriele	Klydziute	Lithuania	Comparative Evaluation of Modified Layered Double Hydroxides for Antibacterial and Antifungal Performance in Construction Plasters
P52	Greta	Linkaite	Lithuania	Synthesis of Magnesium Whitlockite via Eco-Friendly Dissolution-Precipitation Method
P53	Zita	Sukackiene	Lithuania	Comparative Study of Cow Catalysts Supported on Copper Sheet and Nickel Foam for Hydrogen Generation
P54	Simona	Bendziute	Lithuania	Molten Salt Synthesis of $\text{Sr}_5(\text{PO}_4)_3\text{Cl}:\text{Eu}^{2+}$ in Air Atmosphere
P55	Gitana	Valeckyte	Lithuania	Efficient Hydrogen Generation from Sodium Borohydride Using Nickel-Based Catalysts
P56	Gabriele	Sarapajevaite	Lithuania	Sustainable Synthesis of MoS_2 and its Application for Organic Molecule Removal

P57	Jonas	Stadulis	Lithuania	Rare-Earth-Free NIR-Excitable and NIR-Emitting Phosphors
P58	Muhammad Adeel	Tariq	Lithuania	Investigating the Methanol Oxidation Activity of Modified Ni(OH) ₂ for Application in Direct Methanol Fuel Cells
P59	Virginija	Kepeniene	Vilnius	Efficient Non-Noble Catalytic Materials for Oxygen Reduction Reaction
P60	Karina	Vjunova	Lithuania	Thin Films of Graphene and N-Doped Carbon for Oxygen Reduction Reaction
P61	Nurzhan	Nurgaliyev	Kazakhstan	Pyrolysis of Plastic Waste for the Production of High-Value Products
P62	Ramunas	Levinas	Lithuania	Electrodeposited Ni/Ni(OH) ₂ Modified With Pd for Improved Methanol Oxidation in DMFCs
P63	Muhammad Naeem	Hafiz	Lithuania	File Electrochemical Deposition of MoS ₂ @Co(OH) ₂ Hybrid Catalyst for Efficient Electrochemical Water Splitting Performance
P64	Ugne	Gliaudelyte	Lithuania	Effect of Low-Pressure Nitrogen Plasma Treatment on Microplastic Release from Polyester-Elastane Blend Textiles
P65	Agne	Sukoviene	Lithuania	Synthesis and Characterization of Fluorescent Superparamagnetic Cobalt Ferrite Nanoparticles
P66	Nadiia	Shevchenko	Estonia	Pyridyl-3-Boronic Acids as Catalysts for Valorization of Biomass
P67	Hamza	Shehroz	Lithuania	Hybrid Synthesis of Nickel-Incorporated Nitrogen-Doped Porous Carbon Derived from Glucose for Direct Methanol Fuel Cell Applications
P68	Aivaras	Kareiva	Lithuania	Synthesis, Characterization and Application in Cosmetics of Zinc Coordination Compounds
P69	Kati	Muldma	Estonia	Valorization of Industrial Waste into Biodegradable Deicing Agents
P70	Kristaps	Sarsuns	Latvia	Approach for Enhanced Drug Delivery: Stabilization of Amorphous Empagliflozin in Core-Shell Electrospun Nanofibers
P71	Katarina	Gurkina	Latvia	Preparation of Eco-Friendly Eutectic Solvents to Improve the Solubility of Drugs

P72	Karina	Kuzborskaja	Lithuania	Studies of ^{60}Co Adsorption in Lake Balsys, Neris River and The Baltic Sea using Fe_3O_4 -Chitosan Nanocomposites
P73	Daina	Upskuvienne	Lithuania	Designing Biomass-Derived Transition Metal and Nitrogen Co-Doped Carbon Catalysts for Enhanced Oxygen Reduction Electrocatalysis
P74	Raminta	Stagniunaite	Lithuania	Ni-Based Bimetallic Coatings for Ethanol Electrooxidation: Formation, Characterization, and Activity
P75	Ausrine	Zabielaite	Lithuania	Silver Nanocubes@Cobalt Ferrite/Graphitic Carbon Nitride as Bifunctional Catalyst for Electrochemical Water Splitting
P76	Dovydas	Karoblis	Lithuania	Molten Salt Synthesis: An Innovative Approach to Inorganic Material Preparation
P77	Justina	Karciauskaite	Lithuania	Structural and Thermal Evaluation of Calcium Deficient Hydroxyapatite Composites Incorporated with Propolis Powder via in situ Method
P78	Aigul	Dastankyzy	Lithuania	Synthesis and Characterization of $\text{LnMn}_{0.45}\text{Fe}_{0.45}\text{Co}_{0.1}\text{O}_3$ ($\text{Ln} = \text{Y, La-Lu}$) Perovskite Oxides Prepared by the Sol-Gel Method
P79	Olzhas	Shalkhar	Lithuania	Synthesis and Characterization of YAG:Ce and YAGG:Ce Phosphors Mixed with Multi-Walled Carbon Nanotubes
P80	Huma	Amber	Lithuania	Sustainable Hydrogen Generation: High-Performance Nickel-Cobalt Alloy Electrocatalysts for Alkaline Overall Water Splitting
P81	Virginija	Uleviciene	Lithuania	Electrocatalytic Performance of Nitrogen- and Metal-Doped Biomass Carbons in Direct Hydrazine-Hydrogen Peroxide Fuel Cells
P82	Aldona	Balciunaite	Lithuania	Co/β Zeolite for OER in Alkaline Media
P83	Zana	Mickeviciene	Lithuania	Nickel And Nickel-Copper Catalysts for the Electrooxidation of Sodium Borohydride
P84	Diana	Vistorskaja	Lithuania	Sol-Gel Synthesis of Novel High-Entropy Mixed-Metal Garnets
P85	Ervinas	Svirskis	Lithuania	Advanced Oxidation of Phthalate Contaminated Secondary Effluent
P86	Gytaute	Sirgedaite	Lithuania	Copper-Silver Nanostructures for SERS