

**Program of the International Conference EcoBalt 2023 "Chemicals & Environment", 09 – 11 October 2023, Tallinn, Estonia**

<b>Monday October 9, 2023</b>			
16:00 – 21:00	Badge pickup and registration		
18:00 – 21:00	Welcome reception and special lecture by Dr. Priit Zingel, Estonian University of Life Sciences		
<b>Tuesday October 10, 2023</b>			
8:45 – 9:00	Welcome speech by Dr. Urmas Nagel, Director of the National Institute of Chemical Physics and Biophysics (NICPB), Estonia		
9:00 – 9:05	Welcome and organizational information (Dr. Monika Mortimer, National Institute of Chemical Physics and Biophysics, Estonia)		
9:05 – 9:50	<b>Plenary Lecture I</b>		
	Talk title TBD, Dr. Steve Ellison, LGC Limited, United Kingdom (Chair: Prof. Ivo Leito, University of Tartu, Estonia)		
9:50 – 10:10	<i>Coffee break</i>		
<b>Parallel session 1: Data Quality in Environmental Analysis</b> Chair: Prof. Ivo Leito, University of Tartu, Estonia		<b>Parallel session 2: The Effects of Legacy and Emerging Chemicals on Ecosystems and Humans (by the Estonian Society of Toxicology)</b> Chair: Prof. Angela Ivask, University of Tartu, Estonia	
10:10 – 10:30	<b>Measurement Quality in Analysis – guidelines and software tools</b> Dr. Bertil Magnusson, Trollboken AB, Sweden Invited speaker	10:10 – 10:30	<b>The effect of environmental pollution in Baltic Sea and North Sea on marine biota and cancer development in fish</b> Dr. Randel Kreitsberg, University of Tartu, Estonia Invited speaker
10:30 – 10:50	Mailis Laht, Estonian Environmental Research Centre, Estonia	10:30 – 10:50	<b>The impact of microplastics on soil invertebrates</b> Prof. Anita Jemec Kokalj, University of Ljubljana, Slovenia, Invited speaker
10:50 – 11:55	General discussion on data quality and environmental analysis	10:50 – 11:05	<b>Microplastics and associated microorganisms in the sea sediment of the Sentina Regional Natural Reserve (Central Adriatic Sea, Italy)</b> Prof. Cristina Miceli, University of Camerino, Italy
		11:05 – 11:20	<b>Novel plasticizers are emerging contaminants</b> Dr. Margit Heinlaan, National Institute of Chemical Physics and Biophysics, Estonia
		11:20 – 11:35	<b>Droplet-based technology for studying phenotypic effect of microplastic on antimicrobial resistance</b> Dr. Simona Bartkova, Tallinn University of Technology, Estonia
		11:35 – 11:55	<b>Endocrine disrupting activity of mixtures composed of pharmaceuticals and nanoplastics</b> Prof. Ivana Vinković Vrček, Institute for Medical Research and Occupational Health, Croatia, Invited speaker
12:00 – 13:00	<i>Lunch</i>		

<b>Parallel session 3: Analytical Method Development for Environmental Pollutants</b> Chair: Prof. Polonca Trebse, University of Ljubljana, Slovenia		<b>Parallel session 4: The Narva River, from Lake Peipsi to the Baltic Sea: Challenges and Opportunities</b> Chair: Yaroslav Kobets, Tallinn University of Technology, Estonia	
13:00 – 13:20	<b>Chasing pollutants concerning public health: from food to smoke</b> Prof. Mojca Bavcon Kralj, University of Ljubljana, Slovenia Invited speaker	13:00 – 13:20	<b>Development of the harmonised methodology for the Narva River water discharge estimation</b> Yaroslav Kobets, Tallinn University of Technology, Estonia
13:20 – 13:40	<b>Identification of emerging contaminants in Estonian aquatic environment</b> Mailis Laht, Estonian Environmental Research Centre, Estonia	13:20 – 13:40	<b>Assessing biological effects of contaminants in the Gulf of Finland, north-eastern Baltic Sea, using sediment biotests with amphipods and biomarker responses in clams</b> Dr. Ivan Kuprijanov, Tallinn University of Technology, Estonia
13:40 – 13:55	<b>Detection of mycotoxins and pyrrolizidine alkaloids in a wide variety of nutritional supplements using the multianalyte HPLC-MS/MS method</b> Zane Berzina, University of Latvia, Latvia	13:40 – 13:55	<b>Estimation of the share of the total nutrient load from the territory of Estonia, coming along the Narva River to the Baltic Sea</b> Dr. Alvena Reihan, Tallinn University of Technology, Estonia
13:55 – 14:10	<b>Current approaches to the derivatization of Chemical Weapons Convention-related alcohols for on-site gas chromatographic analysis</b> Dr. Tomas Rozsypal, University of Defence, Czech Republic	13:55 – 14:10	<b>Water quality index (WQI) as a tool to assess waterbodies status. Joint WQI model development for River Narva and the rivers of the lake Peipsi basin</b> Kati Roosalu, Tallinn University of Technology, Estonia
14:10 – 14:25	<b>Cost-effective and compact measurement of Arsenic in water (ARMINE project-MITY)</b> Jay Pee Oña, University of Oulu, Finland	14:10 – 14:25	<b>Non-formal ecological education: tested innovative methods in Lake Peipsi region</b> Margit Säre, Peipsi Center for Transboundary Cooperation
14:25 – 14:45	<b>Construction and Applications of Electrochemical Sensors/Biosensors for Environmental and Pharmaceutical Analysis</b> Prof. Yusuf Dilgin, Çanakkale Onseiz Mart University, Turkey Invited speaker	14:25 – 14:45	<b>International business, academic and RDI cooperation as drivers and accelerators of sustainable economic growth in biotechnology and the circular economy - Results of the BBC1 - project</b> Saija Helena Tillgren, Mikkeli Development Miksei Ltd., Finland
14:45 – 15:00	<i>Coffee break</i>		
<b>Session 5: Chemicals and Environment I</b> Chair: Prof. Vera Slaveykova, University of Geneva, Switzerland			
15:00 – 15:20	<b>Role of plant volatiles in atmospheric processes under current and future climates</b> Prof. Ülo Niinemets, Estonian University of Life Sciences, Estonia, Invited speaker		
15:20 – 15:40	<b>The use of biomarkers in monitoring and assessment of chemical contamination in the Baltic Sea</b> Dr. Kari Lehtonen, Finnish Environment Institute, Finland, Invited speaker		
15:40 – 16:00	<b>A Chimie Douce route to layered double hydroxides</b> Prof. Aivaras Kareiva, Vilnius University, Lithuania, Invited speaker		
16:00 – 16:20	<b>The environmental safety aspects of technologically powerful materials are often overlooked</b> Dr. Anne Kahru, National Institute of Chemical Physics and Biophysics, Estonia, Invited speaker		

16:20 – 17:30	<b>Poster session and expo</b>
19:00 – 23:00	Conference dinner and museum visit at the Seaplane Harbour (Vesilennuki 6, Tallinn)

### Wednesday October 11, 2023

9:00 – 9:05	Organizational information (Dr. Monika Mortimer, National Institute of Chemical Physics and Biophysics)		
9:05 – 9:50	<b>Plenary Lecture II</b>		
	<b>Nanoplastic-Biomolecular Interactions</b> Prof. Pu-Chun Ke, Great Bay Area National Institute for Nanotechnology Innovation, China, and Monash University, Australia Chair: Dr. Monika Mortimer, National Institute of Chemical Physics and Biophysics, Estonia		
9:50 – 10:10	<i>Coffee break</i>		
<b>Session 6: Chemicals and Environment II</b> Chair: Dr. Anne Kahru, National Institute of Chemical Physics and Biophysics, Estonia			
10:10 – 10:30	<b>Talk title TBD</b> Dr. Tiit Lukk, Tallinn University of Technology, Estonia, Invited speaker		
10:30 – 10:50	<b>Compounds from personal care products as emerging contaminants in swimming pool waters</b> Prof. Polonca Trebse, University of Ljubljana, Slovenia, Invited speaker		
10:50 – 11:05	<b>Formation and bioaccumulation of methylmercury along vertical and spatial gradients in Baltic Sea waters</b> Prof. Erik Björn, Umeå University, Sweden, Invited speaker		
11:05 – 11:20	<b>Nanocomposite Metal Oxide/Hydroxide Adsorbents for Advanced Wastewater Treatment and Toxicological Risk Assessment for the Aquatic Environment</b> Dr. Asya Drenkova-Tuhtan, National Institute of Chemical Physics and Biophysics, Estonia		
11:20 – 11:35	<b>Silver-chitosan nanocomposites for biomedical application: design, synthesis and antimicrobial efficiency</b> Dr. Kaja Kasemets, National Institute of Chemical Physics and Biophysics, Estonia		
11:35 – 11:55	<b>What phytoplankton species can tell us about the implications of engineered nanoparticles in the aquatic environment</b> Prof. Vera Slaveykova, University of Geneva, Switzerland, Invited speaker		
12:00 – 13:00	<i>Lunch</i>		
<b>Parallel session 7: Photocatalytic Materials</b> Chair: Prof. Pu-Chun Ke, Great Bay Area National Institute for Nanotechnology Innovation, China		<b>Parallel session 8: Green Materials</b> Chair: Prof. Aivaras Kareiva, Vilnius University, Lithuania	
13:00 – 13:20	<b>Activity of Nanomaterials in Photocatalysis</b>	13:00 – 13:20	<b>A brief journey on the world of heteracyclo[n]phanes, synthesis and CO<sub>2</sub> adsorption</b>

	Prof. Marina Kritsevskaja, Tallinn University of Technology, Estonia Invited speaker		Prof. Jean-Manuel Raimundo, Aix Marseille University, France Invited speaker
13:20 – 13:40	<b>Innovative nanocomposites made of polymers and semiconductor photocatalysts for wastewater treatment</b> Dr. Giuliana Impellizzeri, National Research Council Institute for Microelectronics and Microsystems, CNR-IMM Catania, Italy	13:20 – 13:40	<b>Electrodeposited Cu nanofoam structures for electrochemical CO<sub>2</sub> reduction</b> Prof. Rimantas Ramanauskas, Center for Physical Science and Technology, Lithuania Invited speaker
13:40 – 13:55	<b>Polymeric hydrogels for the removal of emerging contaminants from water (ANTIBIO)</b> Dr. Sabrina Carola Carroccio, National Research Council Institute of Polymers, Composites and Biomaterials, CNR-IPCB Catania, Italy	13:40 – 13:55	<b>Nitrogen-Doped Reduced Graphene Oxide for Electrochemical Sensing Applications</b> Dr. Justina Gaidukevič, Vilnius University, Lithuania Invited speaker
13:55 – 14:10	<b>Evaluation of environmental hazard of nanocomposites for wastewater treatment (ANTIBIO)</b> Dr. Villem Aruoja, National Institute of Chemical Physics and Biophysics, Estonia	13:55 – 14:10	<b>Apatites as efficient catalysts in C-C bond formation</b> Dr. Michel Gruselle, French National Centre for Scientific Research, France
14:10 – 14:25	<b>Plasma electrolytic oxidation synthesis of heterostructured TiO<sub>2</sub> for photoanode applications</b> Dr. Ramūnas Levinas, Center for Physical Sciences and Technology, Lithuania	14:10 – 14:25	<b>Designing of sustainable building material made of non-fired clay with various biopolymers</b> Yahor Trambitski, Vilnius Gediminas Technical University, Lithuania
14:25 – 14:45	<b>Pulsed corona discharge plasma combined with photocatalytic oxidation technology for the degradation of volatile organic compounds in air</b> Dr. Juri Bolobajev, Tallinn University of Technology, Estonia Invited speaker	14:25 – 14:45	<b>Hemicucurbituril-porphyrin supramolecular systems for pollutants sensing and remediation</b> Prof. Riina Aav, Tallinn University of Technology, Estonia Invited speaker
14:45 – 15:00	<i>Coffee break</i>		
<b>Parallel session 9: Novel Approaches for Pollution Management</b> Chair: Prof. Ivana Vinković Vrček, Institute for Medical Research and Occupational Health, Croatia,		<b>Parallel session 10: Sustainable Chemistry</b> Chair: Prof. Marina Kritsevskaja, Tallinn University of Technology, Estonia	
15:00 – 15:20	<b>Anthropogenic activities and microbial populations: war, peace or adaptation?</b> Prof. Eglė Lastauskienė, Vilnius University, Lithuania Invited speaker	15:00 – 15:20	<b>Use of neoteric solvents in biomass treatment</b> Dr. Mihkel Koel, Tallinn University of Technology, Estonia Invited speaker
15:20 – 15:35	<b>Metal-phenolic network-coated nanoparticles for reducing the toxicity of metal nanomaterials</b>	15:20 – 15:35	<b>Production and characterization of polysaccharides from <i>Rhodotorula toruloides</i></b>

	Dr. Monika Mortimer, National Institute of Chemical Physics and Biophysics, Estonia		Henrique Sepulveda Del Rio Hamacek, Tallinn University of Technology, Estonia
15:35 – 15:50	<b>Spray-pyrolysis synthesised TiO<sub>2</sub> thin films for photocatalytic air treatment from VOCs</b> Dr. Jekaterina Sydorenko, Tallinn University of Technology, Estonia	15:35 – 15:50	<b>Elemental Composition, and Isotope Ratio in Pine Needles: The Impact of Arginine Phosphate-Containing Fertilizer</b> Maris Bertins, University of Latvia, Latvia
15:50 – 16:05	<b>Microplastics in influents and effluents of Estonian wastewater treatment plants</b> Ayankoya Yemi Ayankunle, Tallinn University of Technology, Estonia	15:50 – 16:05	<b>Antioxidative and anti-Borrelia effects of Plantago species</b> Pille-Riin Laanet, Tallinn University of Technology, Estonia
16:05 – 16:20	<b>The water flea as a “canary in the coal mine” – Using phenotypic and molecular endpoints to understand pollution</b> Prof. Konstantinos Grintzalis, Dublin City University, Republic of Ireland	16:05 – 16:20	<b>The study of the uptake of chromium, zinc, cadmium and lead from spiked nutrient solution in tomato plants</b> Dr. Katarina Markovič, Jožef Stefan Institute, Slovenia
16:20 – 16:45	<b>Use of the midge <i>Chironomus riparius</i> larvae in plastic’s ecotoxicity studies and peculiarities of their responses</b> Dr. Alla Khosrovyan, National Institute of Chemical Physics and Biophysics, Estonia	16:20 – 16:45	<b>Overlooked residue of Li-ion battery recycling waste as high-value bifunctional oxygen electrocatalyst for Zn-air batteries</b> Dr. Kerli Liivand, National Institute of Chemical Physics and Biophysics, Estonia
16:45 – 17:00	<b>Importance of viruses in carbon and nitrogen cycles in aquatic ecosystems</b> Dr. Sigitas Šulčius, Nature Research Centre, Lithuania Invited speaker	16:45 – 17:00	<b>Sustainable chemistry through catalysis and process intensification</b> Prof. Henrik Grénman, Åbo Akademi University, Finland Invited speaker
17:00 – 17:15	Announcement of the Best ECR Presentation and the Best ECR Poster Awards and closing of the conference		