EuChemS
Division of Chemistry and the Environment

Newsletter 10
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Issue dedicated to the ICCE 2025

The goal of ICCE 2025 was to contribute to a better understanding of pollutants' cycling, and their fate and effects in the environment, while advancing pollution prevention and waste management.
The latest developments in environmental analysis, pollution monitoring and risk assessment directly shape policy which inevitably focus on various sustainability strategies, from local to global level. The strategies benefit from the contributions of Environmental Chemistry to a circular economy, a cleaner environment and better design of an education area in order to fit the societal purposes.
In that context, the conference was a successful showcase of current results and trends in research worldwide. At the same time, issues and needs that environmental chemists face on the road contributing to sustainability were highlighted and discussed among participants. In this way the Division of Chemistry and the Environment (DCE) of the European Chemical Society (EuChemS) promoted the share of knowledge and research development, contributed to researchers' impacts on policy issues and raised public awareness on the most relevant themes in the field.
The conference was attended by 331 delegates from 36 countries all over the world with 172 oral and 152 poster presentations in addition to 5 plenary, 2 ACS distinguished lectures and 14 keynote lectures. Near 25% of delegates were students. Among top attending countries beside the host country there were: Italy, Spain, Germany, France, Poland, Switzerland, Portugal, Czech Republic and Romania. In addition to European countries, delegates from Brazil, Canada, China, Egypt, India, Indonesia, Japan, New Zealand, South Korea, Taiwan and USA participated.

After the opening ceremony, from left to right, Vladimir Beškoski (Conference Chair), Roland Kallenborn (EuChemS DCE Chair), Ivana Ivančev-Tumbas (Conference Chair), Branimir Jovančićević (plenary lecturer), Angela Agostiano (EuChemS president), Slavica Ražić (EuChemS Executive Board Member).

At the opening ceremony, after the short introductory words of the Conference Chair Ivana Ivančev Tumbas (Serbian delegate in DCE), Angela Agostiano, President of the EuChemS, welcomed all the participants by stressing the importance of joint European work and contributions of EuChemS for shaping the European policy developments, DCE having a vital role. She also recalled the long tradition of successful work of the ICCE2025 host, the

Serbian Chemical Society (SChS). Then, Vladimir Beškoski, as Conference Chair and the President of the Division of Environmental Chemistry of the SChS, welcomed the guests and introduced the SChS Vice-President, Aleksandra Dapčević. Aleksandra supported the organizing and international scientific committees as well as all the participants in their efforts to make the conference a successful event.

The Chair of the EuChemS DCE, Roland Kallenborn, announced the EuChemS DCE Career Award for 2025 granted to Emeritus Professor Terry Bidleman from Sweden, who delivered the lecture "*Halogenated natural products: New-old chemicals of emerging concern"*, presenting top research questions, currently on the global agenda.

After the discussion part, Roland Kallenborn announced the official start of the conference with the first plenary lecture, "*Polycyclic alkanes as a forensic tool in the identification of petroleum-type pollutants in the environmen*t" presented by Branimir Jovančićević from the University of Belgrade-Faculty of Chemistry.

The conference was running 4 days through 14 sessions (2-3 in parallel accompanied with separate whole-day poster sessions). Before the sessions, every working day started with excellent plenary talks that were given by eminent researchers. Begoña Jiménez (Instituto de Química Orgánica General, CSIS, Spain) gave the talk within the conference theme ***"Various aspects of Environmental analytical chemistry"***.

Her plenary lecture, "*POPs as critical novel entities: analytical and regulatory challenges*", addressed the planetary crisis through the POPs examples, from the analysis to the regulations. On the 10th of June, in addition to traditional chemistry sessions, also sessions on processes, materials and technological developments were organized. They were grouped under the conference theme ***"Occurrence and fate of pollutants in different environmental compartments/ exposure/ remediation"***.

Thus, the plenary talk introduced participants to a rising technical chemistry application in environmental engineering, presenting the state of the art in membrane design. The talk named "*Advanced membranes with tailored filtration, adsorber or catalytic properties for removal of micropollutants from water*" was delivered by Mathias Ulbricht (University Duisburg-Essen, Germany).

The third day of the conference started with the plenary talk of Ester Heath (Jožef Stefan Institute, Slovenia) who clarified the pathways from the policy to sustainability perspective, in a today urgent research topic: "*From drain to grain: Opportunities and Challenges in Wastewater Reuse for Agriculture*". This talk was related to the same theme of the conference ***"Occurrence and fate of pollutants in different environmental compartments/ exposure/ remediation***

At the last day of the conference, the event wrap up was announced by closing the loop with the conference theme ***"Environmental chemistry and societal challenges"*** for regulation and support to policy decisions.

George Cobb (Baylor University - Waco, Texas USA) gave the lecture titled "*Utilizing Chemical Fate and Transformation Data to Inform Policy Decisions*", presenting experience from real examples of chemical assessment approaches with their challenges and possible improvements.

Furthermore, on 10th and 11th of June, two distinguished lecturers, members of American Chemical Society (ACS), delivered mid-day talks as plenary lectures. Firstly, Virender K. Sharma (Department of Chemical, Environment, and Material Engineering, University of Miami, USA-**a**) introduced us into the world of ferrates and the mechanisms of their interactions in many processes important for sustainability topics "*Ferrates in Water, Energy, Food, and Human Health*". After that, John Giesy (Baylor University - Waco, Texas, USA-**b**) presented "*Wastewater-based surveillance of SARS-CoV-2*" showing how pandemic management can be successfully implemented using specific complementary monitoring approach.

(a) (b)

As mentioned, the conference was organized in four thematic topics containing a number of sessions with oral and poster presentations, as follows:

Occurrence and fate of pollutants in different environmental compartments/ exposure/remediation

- Session on *Atmospheric chemistry and air pollution* was organized and chaired by Gerhard Lammel (Max Planck Institute for Chemistry, Germany), Pérola Vasconcellos (Instituto de Química - Universidade de São Paulo, Brasil) and Barend van Drooge (Barend van Drooge, IDAEA-CSIC, Spain). 16 Oral presentations and 17 posters were given. The keynote (Gaëlle Uzu, CNRS-IGE Grenoble) provided an excellent update on the state of the art and of legislation concerning health relevant metrics to characterize air quality. Participants presented monitoring studies in different areas related to PM2.5 and PM10, PAH and BC. Several related studies on toxicity were presented (e.g.data on pesticides in the air). Furthermore, the quality of indoor environments was discussed.

- Session on *Water chemistry, water pollution and water treatment* chaired by Ivana Ivančev-Tumbas (University of Novi Sad, Faculty of Sciences, Serbia), Stefan Panglisch (University Duisburg-Essen, Germany), George Cobb (Baylor University Waco, Texas, USA), Maria Eduarda Pereira (University of Aveiro, Portugal), Ioannis Katsoyiannis (Aristotle University of Thessaloniki, Greece) and Aleksandra Tubić (University of Novi Sad, Serbia) worked for two days. It was always very well attended with 60-80 participants in the room. The first day consisted in 19 oral and 4 poster presentations. The keynote lecture "*Arsenic in Drinking Water Resources: Global Challenges and Local Solutions*" was provided by Jasmina Agbaba (University of Novi Sad, Serbia). The subsequent talks of participants were related to the recent developments in monitoring and analysis, also research on transformation of pollutants in various ambiental waters and electrochemical approaches in removal of water pollution. The second day 21 orals and 19 posters were presented. Keynote connected water chemistry with water technology. Stefan Panglish (University Duisburg-Essen) gave the talk named "*Application of membranes in hybrid processes for the removal of micropollutants*". After that, the participants presented work on new materials tested for removal of chromium, neodymium and copper, followed by the various approaches for sustainable removal of organic contaminants (e.g. hydrodynamic cavitation). Both new research on oxidative (mainly ozone, but also chlorine dioxide and biological treatment) and non-oxidative strategies (various types of (ad)sorption and hybrid processes for micropollutant's minimisation) were shown.

- Session on *Contaminants of emerging concern in focus (occurrence, analytical assessment, regulation, climate change impacts on the fate of contaminants)* was chaired by Costas Michael (University of Cyprus, Cyprus),

Adrian Covaci (University of Antwerp, Belgium), Ivana Teodorović and Jelena Živančev (University of Novisad, Serbia),. It gathered 22 oral and 25 poster presentations and two keynote lectures. Despo Fatta-Kassinos (Department of Civil and Environmental Engineering, University of Cyprus) presented the most novel insights into "*Understanding micropollutant profiles and microbial dynamics in reclaimed water use systems*". This was followed by dedicated sub-sessions on PFAS and on PMs and emerging contaminants addressing not only to persistency but also to mobility the of compounds. The other keynote talk: "*Occurrence and Fate of Contaminants of Emerging Concern and New Persistent Organic Pollutants in Different Environmental Compartments. Influences of plastic particle pollution*" was provided by Marinella Farré (IDEA- CSIC, Spain). It was followed by sub-sessions on emerging contaminants and pharmaceuticals and on organic contaminants, in general.

- Session on *Manufactured particles in the environment (e.g. nanomaterials, microplastics)* was chaired by Thomas Bucheli (Environmental Analytics, Agroscope, Switzerland), Aleksandra Tubić (University of Novi Sad, Serbia) and Anatonio Marcomini (University Ca' Foscari of Venice, Italy). It set the ground for three blocks with a total of 18 oral presentations, and 13 posters. The session started off with Katrin Vorkamp's (Aarhus University, Denmark) inspiring keynote lecture "*Microplastics as a global pollution problem – experience from monitoring efforts in the Arctic*". on her experiences with microplastic monitoring efforts in the Arctic region. Other contributions covered a wide variety of particle types, such as various (micro-)plastic polymers, tyre wear, nano-carriers in agriculture, metal oxide nanoparticles, and ranged from analytical method development, to emission, distribution and fate, exposure and effect studies in all major environmental compartments, and also at different trophic levels. The greatest challenges in the field remain the lack of reference materials, fit-for-purpose analytical methods including representative sampling, sample processing, particle detection and quantification, as well as quality assurance and quality control, and thus the comparability of results.

- Session on *New process materials and methods for innovative treatment of waste streams* was chaired by Ioannis Katsoyiannis (Aristotle University of Thessaloniki, Greece), Snežana Maletić (University of Novi Sad, Sebia) and Annabel Fernandes (University Beira Interior, Portugal). Keynote lecture for the session was provided by Bruno Glaser (Martin Luther University Halle-Wittenberg, Germany) under the title "*Transforming Waste Streams: Innovative Materials and Methods for a Sustainable Zero-Waste Future* ". The session had 10 oral and 12 poster presentations.

- Session on *Bioremediation and Biodegradation including mining impact on the environment* was chaired by Vladimir Beškoski (University of Belgrade, Sebia), Gerald Thouand (University of Nantes, France), Jasmina Nikodinović-Runić (Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia) and Carlos Fernandes (Robert Gordon University, United Kingdom). The session had 12 oral and 17 poster presentations. Keynote lecture "*Can biological functions of bacteria and plants contribute to safe crop production?*" was presented by Hideyuki Inui (Kobe University, Japan).

Environmental analytical chemistry, different aspects of

- Session on *Challenges in modern analytical chemistry - sustainable sample processing from simple to complex environmental matrices (EuChemS DAC-DCE)* was organised by Slavica Ražić (EuChemS Executive Board Member; University of Belgrade, Serbia), Thomas Bucheli (Environmental Analytics, Agroscope, Switzerland) and Boguszlaw Buszewski (Nickolaus Copernicus University, Poland) was discussing processing of complex environmental samples. It attracted 6 oral and 2 poster presenters.

- Session *on Advances in target and non-target screening in environment by HRMS* was organised and chaired by Ester Heath (Jožef Stefan Institute, Slovenia), Silvia Lacorte (Department of Environmental Chemistry, IDAEA-CSIC, Spain), Christian Zwiener (University of Tuebingen, Germany) and Adrian Covaci (University of Antwerp, Belgium) (all DCE members). The session included a keynote lecture, 7 oral and 4 poster presentations. The keynote lecture "*Suspect and non-target*

screening of organic micropollutants in aquatic environment using liquid chromatography high-resolution mass spectrometry" was presented by Dimitra Lambropoulou (University of Thessaloniki, Greece) as a broad overview on suspect and non target screening applications to characterize organic micropollutants in the aquatic environment. The topics of the main session were on non target, suspect and target analysis approaches and their applications for persistent, mobile contaminants in river bank filtration (J. Hollender, EAWAG), the characterization of the chemical space in wastewater (P. Fialova), endocrine disruptors in wastewaters (G. Trommetter), organic compounds in ice cores (F. Burgay), emerging contaminants by ion-mobility-mass spectrometry (A. Covaci), NTS characterization of PFAS contamination from firefighting (C. Zwiener), and characterization of natural organic matter by pyrolysis-HRMS (I. Meignant). The session featured a series of insightful presentations by leading experts, focusing on the latest developments in the use of high-resolution mass spectrometry (HRMS) for environmental analysis. The talks prompted thoughtful discussion and demonstrated both the scientific rigor and real-world relevance of current research in the field. The session was well attended and clearly reflected the growing importance of HRMS in addressing complex environmental challenges.

- Session on *New analytical methods for long-term monitoring of environmental pollutants (EuChemS DCE-IUPAC)* was organized and chaired by Roland Kallenborn (Norwegian University of Life Sciences, Norway) and Hemda Garelick (Middlesex University, UK). It was opened by the keynote talk of Kai Bester (Aarhus University, Denmark) namely "*Priority pollutant monitoring in wastewater and wastewater treatment*" and followed by 6 oral and 10 poster presentations related to various aspects of the topic.

- Session on *Applications of data analytics and in-silico tools in environmental science and engineering* comprised of 5 oral and 2 poster presentations. It was organized by Christian Zwiener (University of Tuebingen, Germany) and Patrik Andersson (Umeå University, Sweden) and chaired by Christian Zwiner and Ivana Ivančev-Tumbas. The main topics were applications of data analysis approaches to estimate retention times of PCB congeners (T. Nakano), improvement of structural elucidation by predictive algorithms (A. Kajtazi), characterization of pigments of paintings (A. Santiglia), determination of microplastics in commercially fish (A. Astel), and measurement of the climate impact of halocarbons by quantum chemical calculations and spectroscopic determination (D.A.A. Jimenez). Poster presentations were dedicated to prioritization of hazards (L. Aisch) and biodegradation of water-soluble polymers (D. Skodras).

Environmental responses to exposure /effects/ hazards & risk assessment

- Session on *New strategies for the assessment of the risks from chemicals (EuChemS DCE-PARC)* including metabolomics and genetic investigations in the context of environmental chemistry was chaired by Roland Kallenborn (Norwegian University of Life Sciences, Norway), Valeria Dulio (INERIS, France), Philippe Garrigues (University of Bordeaux, France) and Silvia Lacorte (Department of Environmental Chemistry, IDAEA-CSIC, Spain). Introduction into the topic was provided by the keynote talk of Katrin Vorkamp (Aarhus University, Denmark) "*The Partnership for the Assessment of Risks from Chemicals (PARC) – new European-scale approaches to monitoring for risk assessment purposes*" and followed by 10 oral presentations covering various aspects of the field (bioaccumulation and bioaccessibility of microplastics, antioxidants, shipping influence on environmental quality, PMT/vPvM substances, naturally occurring asbestos, endocrine disruptors, pesticides, oxidative potential and carcinogenicity of particulate matter and links between water pollution and virulence of pathogenic bacteria). The session also included 16 poster presentations.

Environmental chemistry and societal challenges

- *Session on Environmental Chemistry in Higher Education, Communication, Ethics, Legislation and Cultural Heritage,* chaired by Ivana Ivančev-Tumbas (University of Novi Sad, Serbia) and Gerhard Lammel (Max Planck Institute for Chemistry, Germany) hosted keynote lecture of Antonio Marcomini (University Ca' Foscari of Venice, Italy) "*The contribution of Italy to the higher education in environmental chemistry: update and upgrade*" and 4 more oral contributions in domain of higher education related to interdisciplinary education of Environmental scientists at the Arctic University (R. Kallenborn), project-based teaching at University of Niš in Serbia (T. Andjelkovic), 6-

year experience collected and responsively used for improvements at undergraduate programme *Environment and Health*, taught at Masaryk University, Czechia (J. Urik) and results gathered during the EuChemS DCE Survey on Environmental Chemistry in Higher Education (I. Ivančev-Tumbas). Overall conclusion was that the environmental chemistry education must be constantly updated and responsively reshaped to fit clear but still dynamic societal purposes. In addition, 3 posters were presented.

- Ester Heath (Jožef Stefan Institute, Slovenia) from EuChemS DCE and Tatjana Ćirković Veličković (University of Belgrade, Serbia) from EuDhemS DFC chaired the *Session Food–Environmental Interplay (EuChemS FCD-DCE joint session)*. The keynote speaker was Prof. Marco Arlorio, a proeminent researcher and Professor of Food Chemistry at the Università del Piemonte Orientale, Italy. He gave the talk "*Food chemistry: a strategic functional tool to define quality and risks in future foods*". The session included 6 oral presentations focusing on ultrasound-assisted extraction and biological evaluation of grape seeds (L. Marinaccio), food safety in circular food production (S. van Leeuwen), chemical profile of biodegradable plastic (A. Praetorius), water footprint evaluation of agri-food products (C. Montefrancesco), refining nitrogen footprint methodology for sustainability assessment in the food sector (M. Marchi) and nutritional LCA in agri-food systems (R. Russo). Poster session consisted of 4 posters in the area of crop growth under different conditions, presence of chitin in soil, sustainable eco-friendly active packaging from food processing waste and impact of photocatalytic materials on seed metabolism. Both the oral and poster sessions were well attended and demonstrated strong interaction between food and environmental research, leading to a lively and engaging discussion between the speakers and the audience.

- Session named *Environmental chemistry for circular economy: Safe-by-design approaches and LCA-based assessment tools (EuChemS DCE - IUPAC)* was chaired by Roland Kallenborn (Norwegian University of Life Sciences, Norway), Roberto Terzano (University of Bari "Aldo Moro", Italy) and Antonio Marcomini (University Ca' Foscari of Venice, Italy). Inspirational keynote lecture "*Toxicological Evaluation of Perfluorooctane (PFOSs) in the Environment: Anatomy of an Environmental Issue* " about forever chemicals in environment is provided by John Giesy (Baylor University - Waco, Texas, USA) followed by several LCA studies on innovative ammonia production, p,p'-diphenolic acid, studies on metal recovery from spent Li-batteries, brominated flame retardants in plastic recycling, etc. Session consisted of 10 oral and 4 poster presentations.

Satellite events

Four well attended pre-conference satellite events related to emerging environmental topics took place on Sunday, 7th of June, before the opening ceremony.

Roland Kallenborn (NMBU, Norway) was the convener for the satellite named "*Polymer additives and associated chemicals: Environmental fate and exposure risks*" attended by 16 delegates. Hemda Garelick (Middlesex University, UK) and Katrin Vorkamp (Aarhus University, Denmark) gave inspiring talks and presentations for discussion.

Ester Heath (Jozef Stefan Institute, Slovenia) and Despo Fatta-Kassinos (University of Cyprus, Cyprus) were the conveners of the satellite "*Transforming Wastewater Treatment Plants into Recovery Facilities: Innovations, Challenges and Sustainable Pathways*" which was attended by 20 delegates. It focused on the latest developments in water reuse regulations, resource recovery, and the associated challenges and concluded by offering potential pathways to address these challenges by sustainable solutions. Speakers were Roberta Maffetone (European Commission, Joint Research Centre), Francesco Fatone (Polytechnic University of Marche, Italy), Paola Verlicchi (University of Ferrara, Italy), Manuela Antonelli (Politecnico di Milano, Italy), Thomas Berendonk (Technische Universität Dresden, Germany) and Janja Vidmar (Jožef Stefan Institute, Slovenia).

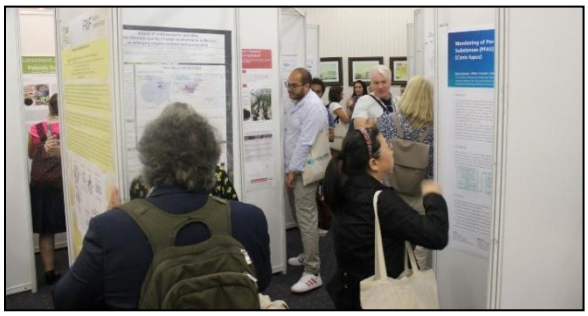
The traditional satellite event on "*How to be successful in scientific publishing*" was organized by Philippe Garrigues (University of Bordeaux, FR) and it was attended by 6 participants.

Before the opening ceremony, satellite event on "*Poly- and perfluoroalkyl substances: New strategies of regulation and monitoring*" was organized by Roland Kallenborn (NMBU, Norway) and Antonio Marcomini (University Ca'

Foscari of Venice, Italy) and it was attended by 38 participants.

Poster area

Posters grouped into the sessions had the possibility for whole day display on the day of related oral presentations from sessions. Authors were present for inspiring and vivid discussions at designed times and coffee breaks.



The conference has shown the necessity to continue research efforts and develop capabilities in all covered themes and topics with main goal to prevent risks and contribute to ensure sustainable practices. Among many other requisites, several have been shown as important:

- The study of known, suspect and unknown pollutants and their effects in all environmental compartments including indoor, urban and remote areas. Not only their occurrence, but also transport, degradation and transformation of the pollutants, in space and time, needs particular attention and efficient modeling to get data useful for further regulation and contribution to sustainable practices. Special attention has to be paid on consequences related to food quality and safety.
- To compel studies on processes, technologies and materials design to efficiently and cost effectively remove pollutants from various media (e.g. air, water) in sustainable way (e.g. with minimization of toxic effects, waste quantities and energy consumption).
- To improve and develop new sample preparation and instrumental analytical methods capable to effectively address the needs for extremely low detection limits and handling of complex matrices. The greatest challenges, not only in the field of analysis of microplastics and nanomaterials in the environment but in all emerging analytical fields, are quality assurance and quality control, comparability of results and fit-for-purpose analytical methods including representative sampling and sample processing.
- A further work on efficient assessment of the risks of chemicals and the development, by design approaches and LCA, of tools and guidelines for pollution prevention.
- A constant improving of the education in the field of Environmental Chemistry at all study levels for both chemists and non-chemists. Improvements should be based on responses from students and societal needs to a modern interdisciplinary education.

Beside, the E-book of conference Abstracts is free to download at: https://cherry.chem.bg.ac.rs/andle/123456789/7084. All the contributions presented at the conference under CC-BY license are in the book.

In addition to regular scientific programme, a special Editorial Panel was organized to meet the Editors of several leading journals in the field of Environmental chemistry and discuss all the relevant issues directly with the researchers. Loss of IF for leading journals in Environmental Science is one of the biggest issues. “Suspicious" publications (from very minor comments to heavily criticisms) are often flagged by the Post Publication Review websites. These comments are used by the indexation databases to assess the Impact Factor and the good practices of the journal. They are now more and more used by assessment committees regard the evaluation of research Institutions and the promotion of individual researchers. It was discussed what are the traps to be avoided by the researchers and the authors when writing scientific publications, how journals and editors respond to this and how scientific community which is

directly affected, can help to bring back their voices.

From left to right: Adrian Covaci (Environmental International Co-EiC), Ioannis Katsoyiannis (Environmental Science and Pollution Research), Virender K. Sharma (Environmental Chemistry Letter, Environmental Science & Technology), Juliane Hollender (Environmental Science &Technology), Philippe Garrigues (Environmental Science and Pollution Research Editor in Chief) and Ivana Ivančev-Tumbas (moderator of the panel and former Editor of IWA Water Science and Technology).

. Overall, the goal is to cultivate an open and sincere communication between editors and authors. Furthermore, it was discussed where AI brings us and how to develop good writing and publishing practice by using it in a right way. The latest issue that was discussed is the fact that diagonal/sloppy reading and studying are very often phenomena. Challenge is how to put the science into clear, reasonably short and attractive important messages which still cultivate good scientific practice and real exchange of knowledge and messages. It was stressed that one must bear in mind that scientific articles are often the most important source of knowledge for the developing world which does not have so much direct experience from projects and has obstacles in gaining knowledge from permanent scientific communication within professional networks and communities. Therefore, showing the impact of good scientific articles on overall social advancement should be strengthened.

Winners of Registration grants and for the best oral and poster presentations

The Foundation Evertéa provided financial support (equivalent to registration fee grant) to a limited number of students and young researchers from all over the world, who cannot find an alternative source of funding to participate at ICCE 2025. The applications for the registration fee grant have been evaluated and approved by the Commission for Evaluation of Grants composed by Prof. Roland Kallenborn (Norwegian University of Life Science), Prof. Gerhard Lammel (Max Planck Institute for Chemistry), Prof. Vladimir Beškoski (University of Belgrade, Serbia) and Dr. Jasmina Nikodinović-Runić (Institute of Molecular Genetics and Genetic Engineering, University of Belgrade, Serbia). ICCE 2025 Registration fee grant winners were: Arun Kashyap, Indian Institute of Technology Hyderabad, Sangareddy, India, for the oral presentation "*Sulfamethoxazole and Copper Drive Changes in Antibiotic Resistance Gene Abundance and Bacterial Community Structure in Aquatic Mesocosms*"; Boulos Samia Aix-Marseille University, Marseille, France; for the oral presentation "*Atmospheric Behavior of Current-Use Pesticides: From Persistence to Degradation and Partitioning Challenges*", Julen Segura, IDAEA-CSIC, Barcelona, Spain, for the oral presentation "*Urinary Biomonitoring of Endocrine-Disrupting Chemicals in a Children's Cohort*"; Marcin Stec, Pomeranian University in Slupsk, Slupsk, Poland, for the oral presentation "*Occurrence and seasonal dynamics of seven analgesics and antipyretics in wastewater and the Słupia River, Poland*"; Marija Kuč, Faculty of Sciences, Department of Chemistry, Biochemistry and Environmental Protection, Novi Sad, Serbia for the poster presentation "*Advancements in Groundwater Treatment: Sulfate Radicals-Driven Advanced Oxidation to Mitigate Vinyl Chloride Contamination*"; Muhammad Zeeshan Gulzar, University of Science and Technology of China, Hefei, China for the poster presentation "*Mechanistic Insights and Degradation Behavior of Microplastics through Hydrothermal Integrated Chemical Treatment for Enhanced Degradation Efficiency*"; Tijana Milićević, University of Belgrade, Institute of Physics, National Institute of the Republic of Serbia, Belgrade, Serbia, for the poster presentation "*Studying the bioaccessibility of soil pollutants and human health risk assessment*" and Marina Giannakara, Agricultural University of Athens, Greece for the oral presentation "*Bioremediation potential of newly isolated glyphosate-degrading bacteria from agricultural and pristine soil*" .

During the conference team of the EuChemS DCE delegates assessed the young researchers and PhD students who participated to the contest for best oral and poster presentations. For that occasion, Springer kindly provided the awards in the form of book vouchers.

Best oral presentations were assigned to Francois Burgay (University of Basel, Switzerland) for the work "*Non-target screening of a European ice core reveals anthropogenic activities have altered atmospheric organic aerosol composition*", Martina Napolitano (Università degli studi di Modena e Reggio Emilia, Italy) for the work "*Bioremediation of high-nitrated nitrocellulose waste: a sustainable approach for environmental degradation at an industrial site*" and Maximilian Clément Eiser (University of Vienna, Austria) for the work entitled "*Investigating structural determinants of angiotensin-converting enzyme inhibitor biodegradation by wastewater microbiomes to guide greener drug selection*". The awardees for the best poster presentations have been Ana Piera-Santacruz (Institute of Environmental Assessment and Water Research, Spain) for the work "*Contamination patterns in water from Important Bird and Biodiversity Areas from Spain*", Ardiana Kajtazi (University of Antwerp, Belgium) for the work "*Longitudinal exposomics for maternal and foetal health linked to adverse birth outcomes*" and Ondrej Parizek (UCT Prague, Czech Republic) for the poster named "*Human Exposure Assessment to Endocrine Disruptors Using Non-Invasive Methods*".

Supporters and sponsors

The organizers extend their heartfelt gratitude to many individuals and organizations whose generous support and dedication made this conference possible. We are especially thankful to the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, our main supporter, for co-financing the event and helping us bring together the international environmental chemistry community. The sincere appreciation also goes to MDPI, Analysis laboratory equipment, PRIMAlab, a member of the Methrom group, Cambridge Isotope Laborotories Inc., Novos, Schimadzu, Kefo, Uni-Chem, Krug International and Labtim.

At the closing ceremony the invitation to the next, 20th ICCE 2027 that will be held in Gdansk, Poland was launched

Conference ESPR Special Issue

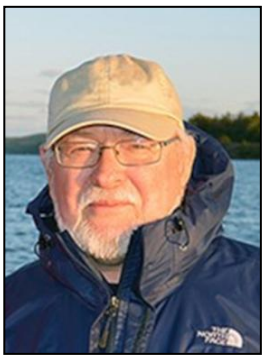
September the 1st, the Springer journal **Environmental Science and Pollution Research** will launch the call for *Special issue on Environmental Chemistry and Sustainability* where the conference participants will have the possibility to submit the manuscripts. Guest editors will be Ivana Ivančev-Tumbas, Vladimir Beškoski, Roland Kallenborn, Gerhard Lammel and Silvia Lacorte. More details you can find in the Call for papers at the link https://link.springer.com/journal/11356/updates/27784498.

Authors: Prof. Ivana Ivančev-Tumbas, University of Novi Sad, Faculty of Sciences and Prof. Vladimir Beškoski, University of Belgrade-Faculty of Chemistry

The authors would like to express the gratitude for contributions of all the EuChemS DCE delegates who sent their co-chairs impressions on the sessions they had organized.

Thanks are also due to Natalija Petronijević for the Photos

Professor Terry Frank Bidleman Honored with the Prestigious DCE Career Award



Professor Bidleman started his career at the University of Minnesota where he earned his PhD in analytical chemistry. He completed postdoctoral work at Dalhousie University and the University of Rhode Island before joining the University of South Carolina, where he served as a professor in chemistry and marine sciences for 17 years. In 1992, he transitioned to a research role at Environment Canada.

During his career, he held visiting professorships at Stockholm University and Umeå University, ultimately joining Umeå University as a visiting professor in 2011.

Professor Bidleman has a strong research focus on environmental fate of organic pollutants, particularly their transport to Polar Regions, lakes, and oceans.

Professor Bidleman pioneered the work with active and passive sampling of organic contaminants in air introducing polyurethan foam as a cheap and efficient solid material. These studies were in 1974 presented in Science, and professor Bidleman together with his post doc mentor Dr. Charlie Olney showed that a large fraction of PCBs was found in the gas phase and less on particulate matter.

In 1988 he published in Environmental Science & Technology the paper entitled "*Atmospheric processes: Wet and dry deposition of organic compounds are controlled by their vapor-particle partitioning*" that significantly influenced both scientific understanding and environmental policy revealing how toxic substances like DDT and PCBs travel through the atmosphere and partition between gas, particle and water phases. The paper has been cited in over 600 published articles. Bidleman was one of the first scientists to understand that the atmosphere has important contributions to POP in aquatic systems.

His research has today a strong focus on Nordic marine ecosystems where he combines advanced analytical chemistry with field work and sampling at several key field stations in northern Sweden, including the Norrbyn, Krycklan, and Abisko research stations. Professor Bidleman has been investigating a large range of organic persistent pollutants including chiral compounds.

Today the focus is mainly on naturally occurring halogenated substances that exhibit persistence, bioaccumulation, and toxicity properties. These halogenated natural products are often brominated and produced in oceans and seas by algae and bacteria. His studies follow the fate of these chemicals from terrestrial to aquatic environments and their interplay with food web components and organic materials. Critical processes include volatilization, precipitation, interaction with particulate matter, and abiotic and biotic transformation processes in a changing climate.

His research provides increased understanding of critical environmental transport and fate processes of both natural and manmade chemicals

He is a very important scientist at the Chemistry Department at Umeå University, Sweden and the national strategic research programme **EcoChange**, inspiring senior as well as younger colleagues.

Roland Kallenborn President of DCE

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