SPECIAL ISSUE

Registered participants of **Winter School** have the possibility to publish full papers in the **Special Issue** entitled "**Emerging Contaminants in Urban Water Systems: Occurrence, Fate, Effects, and Control Strategies**" of **Journal of Environmental and Chemical Engineering** (**JECE**), Elsevier.

This special issue will contain selected papers from the **2024 IWA Micropol and Ecohazard Conference** (https://iwa2024micropol.org/, Taipei, Taiwan, 16-20th June 2024) and from the **Winter School on Contaminants of Emerging Concern (CECs) and Disinfection By- Products (DBPs): Occurrence, Impact and Elimination** (Porto, Portugal, 25-26th November 2024), with significant novelty and scientific impact on the topics described below. It should be noted that the submission is NOT limited to the events participants but open to all authors who wish to contribute to a multifaceted perspective on the interplay between the water industry and energy/resource sustainability.

The submission platform for papers will be open between **01st July 2024** to **31st March 2025**. Earlier submissions are encouraged, and papers will be published online as soon as they have been accepted for publication. All invited papers will be subject to the same rigorous peer-review process as regular submissions to the journal, and upon publication each author team will be provided with a free pdf file of the printed article. We ask that you submit your manuscript directly to the JECE editorial office by online submission at https://www.editorialmanager.com/jece/default.aspx.

Please consult the guide for authors to see if your paper falls within the scope of the journal. Papers out of scope will not be considered. A review is expected to present a critical overview of the state-of-the-art of a topic, with critically selected examples (not only from your own work), to point the reader to trends and likely future developments and to give a selection of important references to the current literature. You will find the journal's instructions for authors on the JECE homepage at https://www.elsevier.com/journals/journal-of-environmental-chemical-engineering/2213-3437/guide-for-authors. Please see also the recent JECE guidelines at https://doi.org/10.1016/j.jece.2021.105429

To ensure that all manuscripts are correctly identified for inclusion into the special issue, it is important that authors select "**VSI: Emerging Contaminants_Research Paper & VSI: Emerging Contaminants_Review article**", respectively, when reaching the "Article Type" step in the submission process.

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Per- and polyfluoroalkyl substances (PFAS), micro(nano)plastics, antibiotic-resistant bacteria and their resistance genes, endocrine disruptors, pesticides, disinfection by-products and pharmaceuticals are increasingly prevalent in urban water systems, posing significant treats to human and ecosystem health. Despite the big progress made during the last decades, there is still an urgent need for solutions paramount to assess risks and implement effective control measures.
This special issue extends an invitation for original research articles, critical reviews, and perspectives, focusing on novel technologies and strategies necessary for comprehensively understanding and mitigating the adverse impact of emerging contaminants in urban water systems.

Moreover, given the exacerbating effects of climate change, we encourage contributions that also address the synergistic interactions between emerging contaminants and climate-driven changes in urban water quality dynamics.

Topics of interest include, but are not limited to:

- Occurrence, fate and transformation of emerging contaminants in natural water systems;
- Occurrence, fate and transformation of emerging contaminants in engineered (waste)water systems;
- Occurrence in non-conventional water sources (e.g., stormwater, reclaimed water);
- Formation of disinfection byproducts in drinking and reclaimed water intended for potable reuse;
- Advanced analysis and monitoring systems;
- Emerging technologies for real-time monitoring and management of emerging contaminants and disinfection by-products;
- Influence of climate change on the occurrence and behavior of emerging contaminants and the formation of disinfection byproducts in the urban water cycle;
- Integration of green infrastructure and nature-based solutions for emerging contaminants removal;
- New treatment technologies and strategies for emerging contaminants;
- Case studies demonstrating mitigation at the source;
- Impacts of emerging contaminants on human health and ecological integrity;
- Risk assessment and communication;
- Data analysis and novel AI tools in the field of water and emerging contaminants;
- Regulation and policy.