

## UN climate summit, COP 28

On November 30<sup>th</sup>, 2023 started one of the most controversial UN climate change conference, namely COP 28. The conference enjoyed a great participation, 100,000 delegates being recorded (twice as in the previous COP).



The conference was held in the United Arab Emirates, state dependent on fossil fuels: oil and gas. The president of the summit was H. E. Dr. Sultan Ahmed Al Jaber, Minister of Industry and Advanced Technology & UAE and also the head of Abu Dhabi National Oil Company. Due to this last position, the leadership for eliminating fossil fuels, as many expected due to climate change, was not realistic.

Accordingly, a presentation of this summit outcome is of interest.

An important issue was the recognition of the connection between the fossil fuels exploitation and the climate change. But, the statement adopted considered not rapid elimination of fossil fuels but only: *“transition away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so*

*as to achieve net zero by 2050 in keeping with the science”*[1]

Initiatives have been developed across the four paradigm shifts (energy, finance, lives and livelihoods plus inclusion).

The first Global Stocktake (GST) was established indicating the needs of actions to keep the rise of temperature under the 1.5°C threshold in order to avoid the catastrophic effects of climate change.

Reduction of emissions was demanded for all countries. Targets to increase energy efficiency and use of renewable sources were indicated.

For solving the problems a new financial architecture was proposed.

Thus, COP 28 proposed a work program for future activity, two global dialogues being provided in 2024 for submitting proposals regarding the topics they will address.

The role of children and youth in climate change was underlined, and education in this direction was planned.



Solidarity, inclusivity and partnership brings people together.

[1] COP 28 the UAE consensus, [www.cop28.com](http://www.cop28.com)

*Prof. Dr. Michaela Dina Stanescu, Romanian Chemical Society, member DCE*

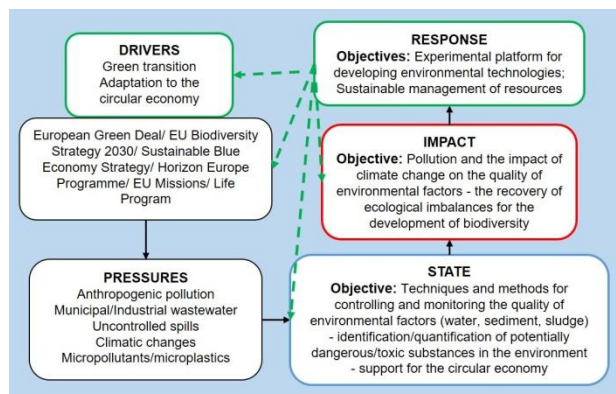
## Environmental research in European Universities and Research Institutions



### ENVIRON-RES Core Program Update

The National Research and Development Institute for Industrial Ecology - ECOIND is actively advancing its Core Program entitled "Essential environmental research to support the green sustainable transition and adaptation to the principles of the circular economy" (ENVIRON-RES). This initiative, granted by Contract 3N/2022 and Code PN 23 22, spans from 2023 to 2026.

**Objective:** The primary goal of the Core Program is to pioneer novel research directions within the environment and industrial ecology domain. Aligned with European trends and the smart specialization domains, these directions aim to address societal challenges and provide innovative solutions for economic agents and stakeholders. The program adopts an integrated approach to environmental issues, following the DPSIR (Driving forces, Pressures, State, Impact, Response) framework for describing the interactions between society and the environment, developed by the European Environment Agency (EEA).



**Component projects:** Seven component projects within the Core Program are actively pursuing distinct research and development directions:

- Identification of emerging contaminants:** Develop methods for the structural identification, chemical confirmation, and analytical quantification of anthropogenic contaminants in various environmental components in line with the new European environmental directives;
- Biodiversity monitoring solutions:** Develop eco-friendly solutions for monitoring and protecting biodiversity in integrative systems, as well as for preventing their destruction;
- Climate change impact evaluation:** Evaluate the impact of climate change in urban and peri-urban areas in Romania, focusing on priority measures for climate resilience;
- Sustainable wastewater technologies:** Develop specialized and sustainable technologies based on advanced oxidation processes intended for wastewater/sludge treatment and the utilization of renewable resources in wastewater treatment processes;
- Environmental biotechnologies:** Develop environmental biotechnologies to support the green transition and align with the principles of the circular economy;
- Innovative micropollutant removal technologies:** Develop innovative technologies for the advanced removal of inorganic and organic micropollutants such as arsenic and secondary products from chlorine disinfection (trihalomethanes and haloacetic acids) adhering to the requirements of the new European legislation on drinking water quality;
- Advanced waste recycling:** Investigate advanced waste recycling through experimental models dedicated to the circular economy.

**Results achieved in 2023:** Several noteworthy results have been obtained, showcasing the program's efficiency:

- Quantitative method for the detection of triazole and imidazole-derivatives contaminants, like: *clotrimazole*, *imazalil*,

*ipconazole metconazole, prochloraz, climbazole, penconazole, tebuconazole, tetraconazole, epoxiconazole* in water matrices using SPE-LC-MS/MS technique;

- In silico study on the distribution and impact of the pharmaceutical substances in the environment;
- Pharmaceutical substances impact study examined the impact of tetracycline and cotrimoxazole with pollution effects on plants with antimicrobial potential;
- Experimental studies: Undertook experimental studies on molecular analysis of phyto-biomarkers of stress; characterization of biotic communities structure in selected aquatic systems; microalgae cultivation experiments and assessment of biohydrogen generation capacity
- Wastewater treatment innovations:
  - Established experimental model solar photocatalytic membrane reactor;
  - Experimental model: installation for wastewater treatment from decentralized sources
  - Experimental model for trihalomethanes removal from water using zerovalent iron reduction and direct ultrasonication methods;
- Detailed Waste Characterization: characterization of leather industry waste and suitability assessment of a circularity loop targeting smart fertilizers with controlled nutrient release.

The Core Program is an integral part of the Romanian National Research-Development and Innovation Plan 2022-2027, receiving support from the Ministry of Research, Innovation and Digitization.



For further inquiries or other detailed information, please contact [Dr. Lidia Kim](mailto:lidia.kim@incdecoind.ro) ([lidia.kim@incdecoind.ro](mailto:lidia.kim@incdecoind.ro))

### **Environmental scientific conferences**

*Sapientia et Virtus*  
VALAHIA UNIVERSITY OF TARGOVISTE

**1<sup>st</sup> Annual International**  
**KreativEU**  
Conference  
**Heritage, Science and Technology**  
for a **Sustainable Preservation**

<b>Topics</b>		
Cultural Heritage: Legal Challenges and Management	Mapping, Interpretation and Marketing of Historical Sites	Natural Hazards and Cultural Heritage
New Trends in Conservation of Cultural Heritage	Technologies and Materials in Cultural Preservation	Invasive and Non-Invasive Techniques Applied on Heritage

**KreativEU**  
Knowledge & Creativity  
European University

**16**  
**18** MAY, 2024

*Welcome*  
to **TARGOVISTE**  
A PLACE EMBRACED BY HISTORY AND HERITAGE



## HEALTH-PROMOTING MINERAL WATERS OF THE SOLANKOWA DOLINA



## HERBS, HERBALISM, HERBAL MEDICINE AND NATURAL PRODUCTS



## NATIONAL CONFERENCE OF CHEMISTRY

XXXVII EDITION

**1 TOPICS**

- Inorganic Chemistry, Physical and Analytical Chemistry
- Macromolecular and Supramolecular Chemistry
- Organic, Bioorganic, and Food Chemistry
- Chemical Engineering and Bioengineering
- New Materials and Nanomaterials
- Environmental Protection and Monitoring

**2 SCIENTIFIC COMMITTEE**

President **Marius Andruh** (Romanian Academy)  
**Mihaela Badea** (University of Bucharest)  
**Anton Ficai** (National University of Science and Technology POLITEHNICA Bucharest)  
**Petru Filip** (ICOS "Costin D. Nenitescu", Bucharest)  
**Florentina Georgescu** (SChR, Ramnicu Valcea Branch)  
**Valeria Harabagiu** ("Petru Poni" ICM Iasi)  
**Michaela Dina Stănescu** ("Aurel Vlaicu" University of Arad)

**3 NATIONAL ORGANIZING COMMITTEE**

President **Bogdan Simionescu** (Romanian Academy)  
**Mihaela Doni** (INCDCP-ICECHIM)  
**Laura Monica Gorghiu** ("Valahia" University of Targoviste)  
**Daniela Marinescu** (SChR, Ramnicu Valcea Branch)  
**Marcela Mihai** ("Petru Poni" ICM Iasi)  
**Corneliu Radu** (National University of Science and Technology POLITEHNICA Bucharest)  
**Cristiana Rădulescu** ("Valahia" University of Targoviste)

**4 LOCAL ORGANIZING COMMITTEE**

**Crinela Dumitrescu** ("Valahia" University of Targoviste)  
**Andreea Laura Bănică** ("Valahia" University of Targoviste)  
**Ioan Alin Bucurică** ("Valahia" University of Targoviste)  
**Ioana Daniela Dulamă** ("Valahia" University of Targoviste)  
**Radu Lucian Olteanu** ("Valahia" University of Targoviste)  
**Geanina Sorina Stănescu** ("Valahia" University of Targoviste)  
**Dorin Daclan Lej** ("Valahia" University of Targoviste)

**5 IMPORTANT DATES**

**June 01<sup>st</sup>, 2024** The last day to send the summary and the participation slip  
**July 31<sup>st</sup>, 2024** Receive notifications of acceptance  
**August 15<sup>th</sup>, 2024** Last day of payment of the participation fee

**6 SCIENTIFIC PROGRAM**

Plenary conferences  
**[40 min]**  
 Conferences in parallel sections  
**[20 min]**  
 Oral communications in parallel sections  
**[10 min]**  
 Posters - Round tables

www.icstm.ro/cnchim-2024

**CNCHIM**  
 Targoviste, September 20-21, 2024

www.simiecoind.ro

## The 27th International Symposium "Environment and Industry"

### About Us

The 27th International Symposium "Environment and Industry" aims to bring together scientists, professors, consultants representing research and educational organizations, economic units, environmental authorities from all over the world in order to exchange their results, propose potential solutions to environmental issues and others that contribute to the integration of environmental dimension in the decision making process.

### The Event Will Be Held On:

SEPTEMBER 19th – 20th 2024 at  
 BLU BAVARIA HOTEL, Mamaia, Constanta

bavariablu.ro/en/

### Topics

- SUSTAINABLE ENVIRONMENTAL TECHNOLOGIES
- POLLUTION ASSESSMENT AND MANAGEMENT SYSTEMS
- POLLUTION CONTROL AND MONITORING
- GREEN SUSTAINABLE DEVELOPMENT, CLIMATE CHANGE AND ENERGY

### Keynote Speakers



**Prof. Asher Brenner**  
 Ben-Gurion University of the Negev (BGU), Israel



**Prof. Eleftheria Psillakis**  
 Technical University of Crete, Greece



**Dr. Indraneel Sen**  
 CEO at Wasabi Innovations

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## Environmental Education in EU

### New study by Slovenian Chemical Society Explores Environmental Education Programmes in Slovenia

Members of the Slovenian Chemical Society, Section for the Environment, have recently published a scientific paper in *Acta Chimica Slovenica*, shedding light on the status of Environmental Education Programmes in Slovenia. A recently published article<sup>1</sup> entitled “*Environmental Education Programmes: A Case Study of Slovenia*” presents the results of a 2023 study aimed to evaluate the state of environmental chemistry study programmes across various educational levels in Slovenia, following the example of the 2014 survey on higher education programmes in environmental chemistry in Europe.<sup>2</sup> The 2014 survey by the Division of Chemistry and the Environment of the European Chemical Society identified two bachelor’s and two master’s programmes in environmental chemistry in Slovenia. This data may have become outdated as new programmes have likely emerged during the last decade. Unlike the previous case, the new study includes equally important secondary education and short-cycle higher vocational education.

The 2023 study identified 46 programmes in environmental science across various educational levels, including ten in secondary education, ten in short-cycle higher vocational education, nine in bachelor’s programmes, 11 in master’s programmes, and six in doctoral programmes. Despite having only 2 million inhabitants, Slovenia’s high number of programmes per capita (9.5 per million inhabitants) highlights its rich educational base in environmental sciences.

These programmes also offer a broad range of subjects, particularly in higher education, reflecting their interdisciplinary nature. Notably, the environmental content of these programmes exceeds that of chemistry and differs considerably depending on the

level of education and the subject of the programmes.

We believe the paper offers valuable insights into student and researcher interest and engagement in the environmental sciences. It also highlights the progress made in Slovenia in the field of environmental sciences in the last 10 years and forms bases to expand the study at European level. The paper was selected for the cover of the current issue of *Acta Chimica Slovenica* acknowledging its significance for advancing environmental chemistry education in Slovenia.

#### References:

- 1 J. Vidmar, J. Hočevar, and E. Heath, Environmental Education Programmes: A Case Study of Slovenia, *Acta Chim. Slov.*, **2024**, *71*, no. 1, 56–68, , doi: 10.17344/ACSI.2023.8585.
- 2 G. Lammel, E. J. Comas, and I. Ivancev-Tumbas, Higher education in environmental sciences with chemistry emphasis: Bachelor and master programmes in Europe, *Environ. Sci. Pollut. Res.*, **2014**, *21*, no. 11, 7211–7218, doi: 10.1007/s11356-014-2737-7.

Janja Vidmar<sup>a,\*</sup>, Jan Hočevar<sup>b</sup> and Ester Heath<sup>a,+</sup>

<sup>a</sup>Jožef Stefan Institute, Department of Environmental Sciences, and Jožef Stefan International Postgraduate School, Ljubljana, Slovenia

<sup>b</sup>University of Ljubljana, Faculty of Chemistry and Chemical Technology, Ljubljana, Slovenia

\*vice president of Section for the Environment, Slovenian Chemical Society

+Representative of Slovenian Chemical Society at DCE, EuCheMS



## Remarkable people in Environmental field

### In Memoriam of Dionysios ("Dion") Dionysiou



**Google data:** h index = 148

$I_{10} = 627$

Citations = 82259

The news of Dion's passing struck us with both surprise and devastation within the members of EuChemS Division of Chemistry and Environment (DCE). Dion was not only a long-standing supporter of our work but also the key liaison between our division and the American Chemical Society's (ACS) Division of Environmental Chemistry (ENVR). Over the past decade, Dion played an instrumental role in supporting the International Conference on Chemistry and the Environment (ICCE) series, collaborating with ACS-ENVR for joint sessions and delivering insightful plenary presentations.

Dion, an internationally renowned scientist, and researcher, held the esteemed position of full professor in environmental engineering at the University of Cincinnati College of Engineering and Applied Sciences. His untimely passing occurred on November 20th, 2023, leaving behind a legacy that will forever resonate within our scientific community.

We remember Dion as an inspiring leader, an enthusiastic scientist, and a dedicated mentor to countless students. His

exceptional scientific contributions garnered numerous accolades and recognitions. In 2022, Dion ranked among the highest-cited researchers in environmental sciences (as recognized by Clarivate), marking the fifth consecutive year of this distinction. His unwavering commitment to excellence led the University of Cincinnati to elevate him to the esteemed position of Distinguished Research Professor in the same year.



Dion's passion extended beyond research; it encompassed the education of Master's and PhD-level students. As a university teacher, he fostered an environment of active participation, allowing his students to contribute significantly to relevant scientific projects. Even after their research was complete, Dion continued to champion their work, leaving an indelible impact on their academic journey.

In recognition of his outstanding dedication to advancing environmental education, Dion received the prestigious W. Wesley Eckenfelder Graduate Research Faculty Adviser Award in 2021. His legacy lives on through the countless lives he touched, the knowledge he imparted, and the inspiration he provided to future generations.

May his memory be a guiding light, illuminating the path for all who follow in his footsteps.

Our prayers and thoughts are going to his wife Paula and his daughters Marianna and Stella.

*Prof. Dr. Roland Kallenborn, Chair of DCE*

**DCE publication:**

**Environmental Science and Pollution Research (ESPR)**

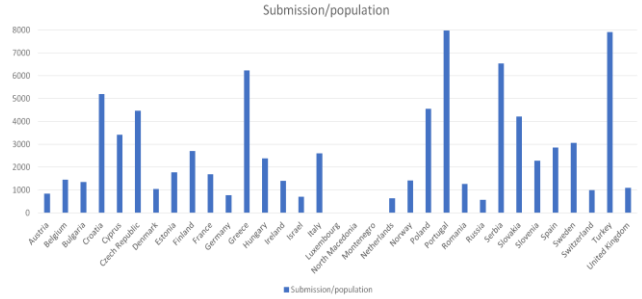
*A scientific journal with a broad interdisciplinary outlook.*

**5.8 (2022) IF**

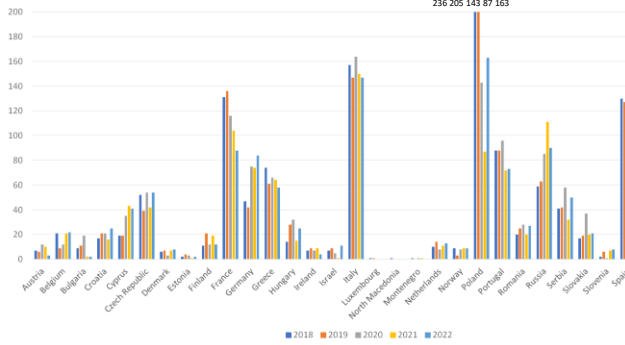
**Editor in chief:** Philippe Garrigues

Some statistics concerning ESPR publications:

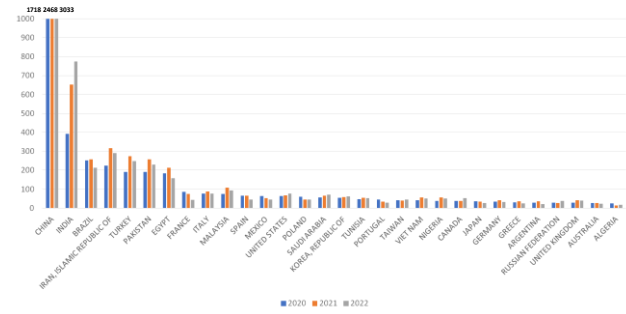
Submissions for DCE countries 2018-2022 proportionally to the population



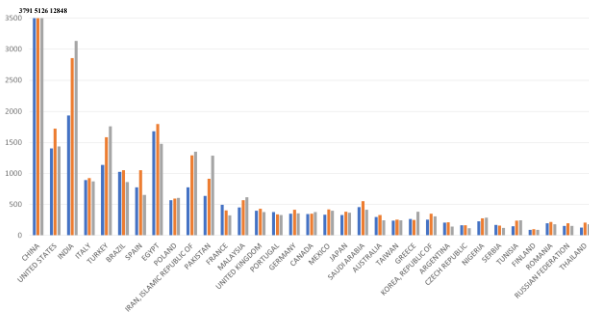
Submissions for DCE countries 2018-2022



Submissions accepted by country top 30 2020-2021-2022



Top country reviewers in 2020-2021-2022



**Newsletter issue contributors:**

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