



CEST 2025

19

INTERNATIONAL
CONFERENCE ON
ENVIRONMENTAL
SCIENCE &
TECHNOLOGY

3 - 6 September 2025
Kos island / Greece

CONFERENCE PROGRAMME



**Prince Sultan Bin Abdulaziz
International Prize for Water**

Recognizing Innovation



Winners for the 11th Award (2024)



Creativity Prize

[1] The team of Maria Cristina Rulli (Polytechnic of Milan, Italy) and Paolo D'Odorico (University of California, Berkeley, USA)

for spearheading novel analyses of the water-energy-food nexus that describe how numerous complex factors interact, providing for better freshwater stewardship in a changing, globalised world.



Maria Cristina Rulli



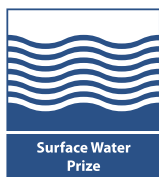
Paolo D'Odorico

[2] The team of Zhiguo He (Zhejiang University, China)

for developing working, versatile soft robots with unprecedented manoeuvrability that have the capacity for numerous underwater research and monitoring applications. Team members include: Pengcheng Jiao and Yang Yang.



Zhiguo He



Surface Water Prize

Qihua Liang (Loughborough University, UK) and his team

for developing innovative, open-source, multi-GPU hydrodynamic models to support real-time flood forecasting at high temporal-spatial resolutions. Team members include: Huili Chen, Xiaodong Ming, Xilin Xia, Yan Xiong and Jiaheng Zhao.



Qihua Liang



Groundwater Prize

Chunmiao Zheng (EIT, Ningbo, China) and his team

for powerful modelling tools to understand groundwater processes and manage groundwater resources under diverse eco-hydrological and climatic conditions, considering environmental and socioeconomic factors at local and national scales.



Chunmiao Zheng



Alternative Water Resources Prize

Virender K. Sharma (Texas A&M University, USA) and his team

for the effective removal of antibiotics and pharmaceuticals from wastewater through advanced oxidative processes by activated ferrate, which work at high, even enhanced, efficiency in water containing commonly occurring natural organic matter. Team members include: Ching-Hua Huang, Chetan Jinadatha and Radek Zbořil.



Virender K. Sharma



Water Management & Protection Prize

Joseph Hun-wei Lee (Macau University of Science & Technology, China)

for developing unique and highly effective hydro-environmental modelling systems for the sustainable water management of smart cities.



Joseph Hun-wei Lee

Invitation for Nominations 12th Award (2026)

Nominations open online until 31 December 2025

www.psipw.org

e-mail: info@psipw.org

19

INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE & TECHNOLOGY

3 - 6 September 2025

Kos island / Greece



Host  **Global NEST**

Co-organizers



Scientific Support



With the support of



Under the Auspices



Platinum Sponsor



Prince Sultan Bin Abdulaziz
International Prize for Water

Gold Sponsors



Silver Sponsors



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Natural Environment and
Climate Change Agency

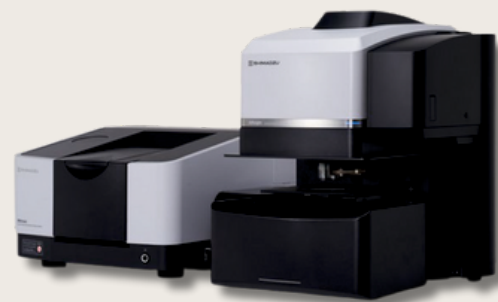


The Natural Environment and Climate Change Agency (N.E.C.C.A.) is a Legal Entity under Private Law, supervised by the Ministry of Environment and Energy.

N.E.C.C.A. is responsible for implementing the policies developed by the Ministry of Environment and Energy regarding the management of protected areas, biodiversity conservation, and the promotion and implementation of sustainable development initiatives and climate change mitigation actions.

The 24 Protected Area Management Units (PAMUs), operating as departments within N.E.C.C.A., together with the Decentralized Administrations, Regions, and Municipalities, form the Protected Area Management System at the regional level.

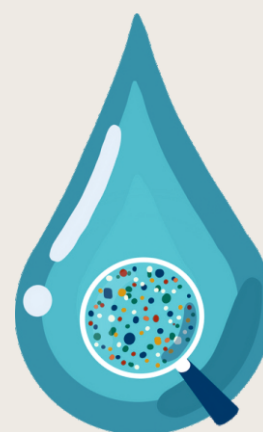
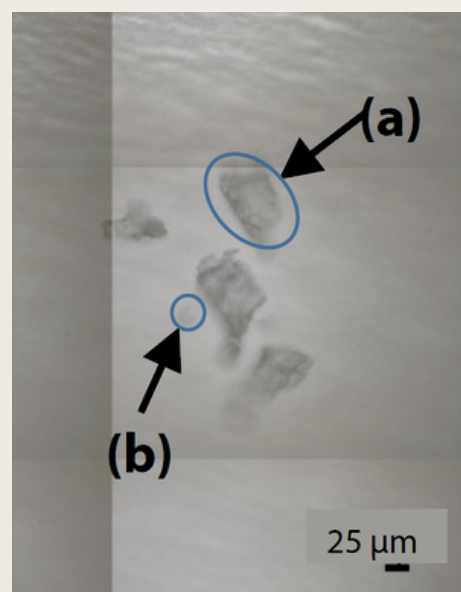




AIRsight Infrared/Raman Microscope

Analysis of Microplastics Using AIRsight Infrared/Raman Microscope

The AIRsight™ Infrared/Raman Microscope allows combined infrared and Raman analysis on microplastics without moving the sample. It enables accurate material identification and particle size measurement, even for very small microplastics (<10 µm). This innovative system improves over traditional methods like FTIR or pyrolysis-GC/MS, offering faster, more precise environmental microplastic analysis.



Fourier Transform Infrared Spectrophotometer Plastics Analysis System

Shimadzu's Plastic Analyzer is a comprehensive system for microplastic analysis, combining a Fourier Transform Infrared (FTIR) spectrophotometer, a single-reflection ATR attachment, and the Plastic Analyzer method package. This package includes unique UV-Damaged and Thermal-Damaged Plastics Libraries, plus a macro program for IR Pilot™, enabling the identification of degraded plastics that standard libraries can't detect. Together with infrared and Raman microscopes, it delivers precise material identification and particle size measurement, supporting advanced environmental microplastics research.



Welcome

On behalf of the Organizing and Scientific Committees, it is our great pleasure to welcome you to the **19th International Conference on Environmental Science and Technology** in **Kos**, a Dodecanese Island with rich cultural heritage and natural beauty. Kos, the birthplace of Hippocrates (antiquity's most noted physician), is brimming with great archaeological interest, unique culinary tradition and alluring natural activities to select from.

CEST2025 will host more than **40 sessions** and over **430 oral and poster presentations** from all the fields of environmental science and technology. Apart from the presentations in the **Opening Session**, **7 plenary speeches** and **7 side events** have been scheduled.

Personally, I would like to thank the conference committees for the excellent and fruitful collaboration, CEST staff, participants, session chairs, and keynote and plenary speakers for helping us to build this very exciting conference program.

Our team has been making significant effort so that your participation will be scientifically rewarding and at the same time you will enjoy your stay in the island of Kos!

Chairpersons



Prof. Demetris F. Lekkas
University of the Aegean,
Greece



Prof. Antonis Zorpas
Open University of Cyprus,
Cyprus



Prof. Vincenzo Belgiorno
University of Salerno,
Italy

CEST2025

The ongoing biodiversity crisis urges governments, countries, organizations & citizens to join their forces to protect nature. The Sustainable Development Goals (SDGs), launched ten years ago by the United Nations, set targets to address global humanitarian and environmental challenges by 2030. Yet, recent data indicate a slow progress towards that direction, with only 17% of SDGs to be currently on track (UNSTATS, 2024). Meanwhile, over 1.2 billion tonnes of plastic waste are expected to be generated by 2060.

The recently adopted EU Regulation 2024/1991 on nature restoration and amending, also known as “Nature Restoration Law”, establishes a framework to all Member States to draft & implement area-based restoration measures for degraded freshwater, terrestrial & coastal habitats by 2030. Restoring natural ecosystems is crucial - among others - to ensure that biodiversity loss will be reversed, land, air & water degradation will be abated, food security and urban ecosystem health will be safeguarded, and local populations will be empowered. At an international level, following the UN Biodiversity Conference (COP15) in Canada in December 2022, COP16 landing in Cali, Colombia, in 2024, recognised and appraised the indisputable legacy of indigenous peoples and people of African descent in biodiversity conservation. That is not to overshadow the significant pending issues of lacking financial models and monitoring mechanisms towards the protection of biodiversity.

Tourism, an important source of revenue

for many cities & regions, presents a rising international trend, according to the World Tourism Barometer of UN Tourism, yet strikes a balance between environmental protection & economic growth. Integrating Circular Economy principles in tourism can ensure that current excessive resource consumption and waste generation are minimized, inclusive value chains are maximized, and the local communities are being rightfully integrated, if appropriate legislation is put in place.

CEST2025 is held at a pivotal time when the intensifying climate crisis - linked with the **depletion and contamination of water resources** - is challenging the resilience of societies worldwide and reshaping the planet's natural systems.

CEST2025 will also explore the role of a circular economy in mitigating impacts by reducing waste, promoting sustainable resource use, and driving innovations that foster environmental and economic resilience. Bringing together experts from multiple fields, this event aims to catalyze collaborative solutions for a more sustainable future. The conference is organized biannually by the **Global Network of Environmental Science and Technology** jointly with the **University of the Aegean** (Greece). It is scientifically supported by the **Open University of Cyprus** (Cyprus) and the **University of Salerno** (Italy). The event is under the auspices of the **Ministry of Environment and Energy**, under the patronage of the **World Water Assessment Programme of UNESCO** and supported by the **A.C. Laskaridis Charitable Foundation** and the **European Water Association (EWA)**.

Conference Thematic Areas



WATER & WASTEWATER
TREATMENT AND REUSE



CIRCULAR ECONOMY
AND BIOECONOMY



PLASTICS IN
THE ENVIRONMENT



SOLID WASTE
MANAGEMENT



ENVIRONMENTAL
MANAGEMENT & POLICIES



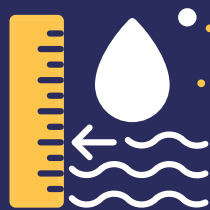
ARTIFICIAL INTELLIGENCE
IN ENVIRONMENTAL
APPLICATIONS



ENVIRONMENTAL
POLLUTION



ECOLOGY,
ENVIRONMENTAL CHANGE
& MANAGEMENT



HYDROLOGY &
WATER RESOURCES



ENVIRONMENTAL
HEALTH & WELL-BEING



ENERGY
TECHNOLOGIES



CLIMATE
CHANGE

PARTICIPANTS



Academics

Researchers

Government Officials

Top Managers (CEOs, VPs, Directors, Gms)

Policy and Decision Makers

Thought Leaders

Engineers and Scientists

Entrepreneurs

Students

Show me some stats!

CEST2025 is for everyone involved with environmental science and technology



4

days



6+

side events



40+

sessions



22

invited speakers



57 participating
countries

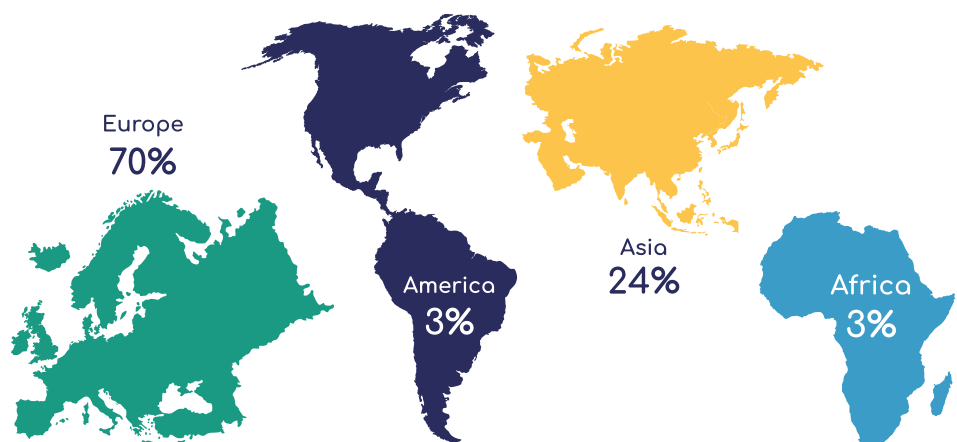


430+ oral/poster
presentations



5 collaborating
scientific journals

CEST participant metrics



CEST series metrics

6514
papers presented
(1989-2025)

9561
CEST citations*

54
h-index

*Number of times CEST papers published in special issues of the collaborating journals since 2005 were cited.

Source: Web of Science, data retrieved in July 2025



Guide for Delegates

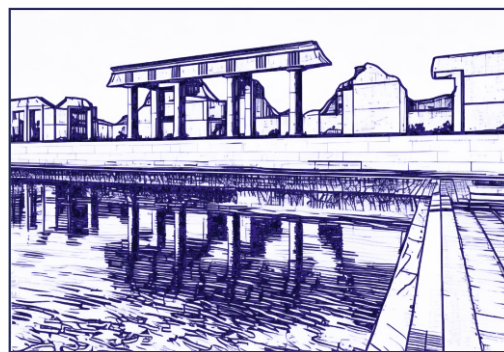
Venue

CEST2025 will take place this year at Kipriotis Village Resort between 3 to 6 September.

Kipriotis Village Resort is a 4-star hotel located on the North-Eastern coast of the island of Kos close to Psalidi Beach offering a tranquil experience.

Kos International Convention Centre (KICC) is a world-class 3-level modern building, situated

directly adjacent to Kipriotis Village with a total capacity of up to 5,500 people and a wide range of amenities. KICC is one of the largest and most impressive conference centers in the Mediterranean region.



Location

Psalidi, 85300 Kos, Greece

Conference language

The official conference language is English

Liability

The Conference fees do not include provisions for the insurance of participants or their accompanying guests against personal injuries, sickness and theft or property damage. Participants are advised to arrange for any insurance they consider necessary. Neither the Conference Organising Committee, nor Scientific and Programme Committee Members assume any responsibility for loss, injury, or damage to persons or belongings, whatever the cause may be.

Programme

CEST2025 Scientific Programme includes more than **40**  sessions, running in **4**  parallel rooms, with over **430**  Oral and Poster presentations. The conference sessions cover **27**  unique scientific topics.

The up-to-date programme for each session is posted every morning in front of the respective room or the respective poster area.



CEST History



Invited Speakers



Dr Maria Antoniou
Cyprus University of Technology
Cyprus



Dr George Arampatzis
Technical University of Crete
Greece



Prof. Florencio Ballesteros
University of the Philippines
Diliman
Philippines



Prof. Damià Barceló Culleres
University of Almeria
Spain



Dr Laure Berti-Equille
Institut de recherche pour le
développement (IRD)
France



Prof. Paolo S. Calabrò
Università Mediterranea di
Reggio Calabria
Italy



Dr Changseok Han
INHA University
South Korea



Prof. Kwang-Ho Choo
Kyungpook National University
South Korea



Prof. Marchello Colledani
Politecnico di Milano
Italy



Dr Polycarpos Falaras
National Centre for Scientific
Research, Demokritos
Greece



Dr Pablo Gago Ferrero
Institute of Environmental Assessment
and Water Research (IDAEA-CSIC)
Spain



Prof. Shadi Hasan
Khalifa University
UAE

Invited Speakers



Prof. Carol Sze Ki LIN
City University of Hong Kong
Hong Kong



Dr Elena López-Gunn
ICATALIST
Spain



Prof. Gerasimos Lyberatos
National Technical University
of Athens
Greece



Prof. Giorgio Mannina
University of Palermo
Italy



Prof. Vincenzo Naddeo
University of Salerno
Italy



Prof. Maria Papadopoulou
National Technical University
of Athens
Greece



Dr Ioannis Skiadas
Technical University of Denmark
Denmark



Prof. Nikolaos Thomaidis
National & Kapodistrian University
of Athens
Greece



Dr Costas Velis
Imperial College London
UK



Dr Paola Verlicchi
University of Ferrara
Italy



Dr Christos Vlachokostas
Aristotle University of
Thessaloniki
Greece



1 Opening Ceremony

Wednesday 3 September 2025, Room Panacea, 17:00

The agenda of the opening session comprises of:

- Welcome speeches
- Welcome speech and practical information about the conference from Demetris F. Lekkas (CEST2025 chair)
- Recognizing Innovation, Dr David Solomon Jalajel, Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW)
- Climate Change, Water Scarcity and Emerging Contaminants: Global Vision and Local Solutions in the Mediterranean Region: The Need for Advanced Water Treatment and Reuse, Prof. Damia Barcelo
- Resilience by design through water and nature: levers for change in the current policy landscape, Dr Elena Lopez-Gunn

Cocktail reception at 19:30 at Kipriotis Village Resort (conference venue)

2 Energy recovery from waste

Workshop

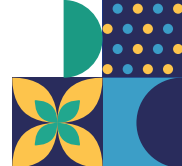
Thursday 4 September 2025, Room Panacea, 11:30

The session explores innovative strategies for transforming agricultural and industrial residues into energy, advanced fuels, and value-added bioproducts. Utilizing insights from the BioFairNet project (<https://biofairnetproject.eu/>), it highlights how advanced green technologies and digital tools are supporting circular and bioeconomy transitions in carbon-intensive regions. It underscores how waste valorization technologies can reduce emissions while fostering local economic resilience. Energy-from-waste can be a pillar of the green and just transition, aiming to empower communities and bridge digital and socio-economic divides.



Funded by
the European Union

This project has received funding from the European Union's Horizon Europe under Grant Agreement N° 101181568.



3 Advanced Oxidation Processes - In Memory of Prof. Dionysios D. Dionysiou

Special Tribute Session

Friday 4 September 2025, Room Aegle B, 9:00

At CEST2025, the Advanced Oxidation Processes (AOPs) session will be dedicated to the memory of Prof. Dionysios (Dion) D. Dionysiou (1968–2023) - a pioneer in environmental engineering, a global leader in water treatment technologies, and a valued member of the CEST Organizing and Scientific Committee for many years.



A few words about Prof. Dionysiou

Dionysios (Dion) Dionysiou was a visionary scientist, mentor & philanthropist, who believed that access to safe drinking water should be a global right, regardless of geography, social status, or financial means. For nearly three decades, he dedicated his career to advancing water purification & disinfection technologies, particularly through the development of innovative advanced oxidation processes.

Prof. Dionysiou earned his Bachelor's degree in Chemical Engineering from the National Technical University of Athens (1991), followed by a Master's degree from Tufts University (1995) & a Ph.D. in Environmental Engineering from the University of Cincinnati (2000). He served for 23 years at the University of Cincinnati, mentoring students, faculty, and scholars worldwide. His research addressed a broad spectrum of topics, including water treatment, advanced oxidation technologies, sustainable water processes, environmental nanotechnology, and the removal of biological and chemical contaminants. His 2023 publication in *Water Journal* reflects his extensive contributions to the field.

He authored over 600 peer-reviewed publications and delivered more than 600 invited talks in +50 countries. From 2018 to 2022, he was consistently recognized as a Highly Cited Researcher by Web of Science in Engineering, Environment & Ecology, and Chemistry. Prof. Dionysiou also held leadership roles in the ACS Division of Environmental Chemistry, supporting early-career, female, and international researchers. He served as UNESCO Co-Chair Professor on "Water Access and Sustainability" (2013–2017) and received numerous honors, including the 2014 AEESP Frontier in Research Award, the 2017 AEESP Distinguished Service Award, and the 2022 Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW) Creativity Prize, awarded jointly with his students.

O'Shea, K.E., Antoniou, M.G. Dionysios (Dion) Demetriou Dionysiou (1966–2023). *Nat Water* 2, 104–105 (2024). <https://doi.org/10.1038/s44221-024-00204-x>

Text authored by Dr Maria Antoniou, Associate Professor at the Department of Chemical Engineering of the Cyprus University of Technology (CUT)



4 Advancing Climate Resilience through Engagement of Citizens: Insights from the CLIMAS Project

Workshop

Friday 5 September 2025, Room Aegle A, 11:30

This workshop will showcase key findings and tools developed within CLIMAS project (www.climas-project.eu/). The ambition of the CLIMAS project is to support the transformation to climate resilience by offering an innovative problem-oriented climate adaptation toolbox, co-designed together with stakeholders by applying a value-based approach, design thinking methods and citizen science mechanisms. The workshop mainly aims to:

- Present the CLIMAS project vision and initiatives developed for the enhancement of citizens' participation in decision-making
- Explore the CLIMAS Toolbox
- Introduce participants to the citizen-collaborative future scenario-building methodology.
- Present the evaluation approach for monitoring the performance and impact of Climate Assemblies.

The expected outcomes include:

- Increased understanding of participatory tools for climate resilience
- Exchange of experiences and insights on best practices
- Strengthening collaboration among stakeholders in climate policy and engagement



Funded by
the European Union

This project has received funding from the European Union's Horizon Europe under Grant Agreement N° 101094021.

5 Analysis of microplastics in water

Short course

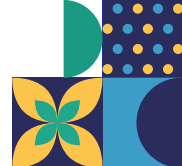
Friday 5 September 2025, Room Aegle B, 17:00

This course (delivered by Prof. Damià Barceló) is structured in 4 parts as follows:

- Part 1 will introduce the participants to the global pollution macro-plastic litter from rivers, sludge, soils, groundwaters and landfills to the sea
- Part 2 will explore sampling, extraction and analysis tools and processes
- Part 3 will delve into ecotoxicology and human health risks
- Part 4 will suggest remediation technologies and sustainable management solutions

Important notice: Attendance on the course is free of charge for CEST2025 registered participants





6 Environmental Impact of Maritime Transport – NAVGreen

Special Session

Saturday 6 September 2025, Room Aegle A, 11:30

This session will be dedicated to exploring the environmental impacts of maritime transport, highlighting legislative, policy, and technological solutions to mitigate them. Within this context, the NAVGreen project - an emblematic initiative aiming to reduce the environmental footprint of shipping - will be presented. The session will address a broad spectrum of topics related to the environmental footprint of maritime activities.

7 Micropollutant Removal and Circular Water Reuse: Challenges and Opportunities under the Revised Urban Wastewater Treatment Directive

Special Session

Saturday 6 September 2025, Room Aegle B, 15:30

The session (coordinated by Dr Paola Verlicchi - University of Ferrara, Italy) aims to gather researchers, water professionals, technology developers, and policymakers to share knowledge, tools, and experiences in the monitoring, removal, and risk assessment of micropollutants within the framework of urban wastewater reuse and circular economy principles.

8 UrbanWaterSECURITY Academy (UWSA)

Tuesday 3 to Friday 6 September 2025 (in parallel with CEST2025)

The International Academy in UrbanWaterSECURITY is an intensive training opportunity open to Master's and PhD students, post-docs, and young researchers. Urban water security is characterized by complex, so-called wicked, problems where traditional assumptions of causality and predictability may not apply. The fundamental importance of better connections between science, policy and society provides new demands on candidates, who are increasingly expected to possess not only a deep knowledge of their own discipline but are additionally capable of placing that knowledge in a wider understanding of societal needs. The Urban water security is one of the most important and priority issues to be resolved for both current and next generations.

The fourth edition of the UrbanWaterSECURITY Academy will be held on the island of Kos, Greece, from September 3 to 6, 2025, in conjunction with CEST2025. This year's Academy is organized by the Waste Management Laboratory (Department of Environment, University of the Aegean, Greece), in cooperation with the



Sanitary Environmental Engineering Division (SEED) of the University of Salerno (Italy). The lectures are included in the CEST2025 daily programme.

The training includes lectures by Leading Experts, hands-On Workshops and discussions and Q&A sessions.

Important notice: Attendance at the Academy is free of charge for CEST2025 registered participants and a certificate will be provided

9 Conference dinner

The conference dinner will be held on Saturday 6 September at 21:00.

More details will be provided to you during the conference.

Entrance is free for registered delegates, while the accompanying people can purchase vouchers at the secretariat desk.



Proceedings & Publication of Papers

All the papers presented at the conference will be published in CEST proceedings (ISSN 2944-9820). The documents will be assigned a DOI number as soon as they are published and they will be available online.

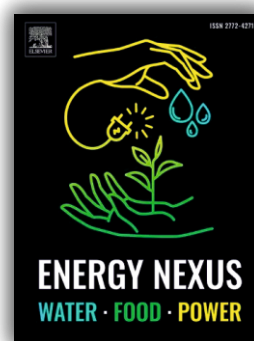
Papers presented in CEST2025, will be submitted for review in the cooperating journals for inclusion in special issues.



CHEMICAL
ENGINEERING
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WASTE
MANAGEMENT
AND RESEARCH



ENERGY NEXUS



GLOBAL NEST
JOURNAL



EURO-MEDITERRANEAN
JOURNAL FOR
ENVIRONMENTAL INTEGRATION



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- NOUSOPOULOS C.**
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- PANAGIOTAKIS I.,**
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- PANTERA A.,**
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- POZOUKIDOU G.,**
Aristotle University of Thessaloniki, *Greece*
- RAMALINGAM K.,**
The City College of New York, *USA*
- RAMOS M.H.,**
National Research Institute of Science and Technology for Environment and Agriculture, *France*
- RICHARDSON S.,**
University of South Carolina, *USA*
- ROSTKOWSKI P.,**
Norwegian Institute for Air Research, *Norway*
- SAN MIGUEL G.,**
Technical University of Madrid, *Spain*
- SHALABY M.S.,**
National Research Centre, Cairo, *Egypt*
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- STEFANAKIS A.,**
Technical University of Crete, *Greece*
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Sapienza University of Rome, *Italy*
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XEKOUKOULOTAKIS N.,

Technical University of Crete, *Greece*

ŽALTAUSKAITĖ J.,

Vytautas Magnus University, *Lithuania*

ZANETTI M.,

Polytechnic of Turin, *Italy*

ZARRA T.,

University of Salerno, *Italy*

ZORPAS A.,

Open University of Cyprus, *Cyprus*

DAILY TIMETABLE

Thursday 4 September 2025

	Room Aegle B	Room Panacea	Room Aegle A	Room Acceso
09:00-10:30	SESSION 2 Wastewater treatment (1)	SESSION 3 Solid waste management	SESSION 4 Air pollution	SESSION 5 Climate change adaptation and resilience
10:30-11:00	Session 6 - Plenary speech			
11:00-11:30	<i>Coffee break</i>			
11:30-13:00	SESSION 7 Wastewater treatment (2)	SESSION 8 Energy recovery from waste	SESSION 9 Environmental management and policy	SESSION 10 Climate change impacts, vulnerability and risks
13:00-15:00	<i>Lunch break</i>			
15:00-15:30	Session 11 - Plenary speech			
15:30-17:30	SESSION 12 Wastewater treatment (3)	SESSION 13 Environmental Biotechnology and Bioenergy	SESSION 14 Hydrology and water resources	SESSION 15 Environmental exposures and human health
17:30-18:30	Poster session 1 & Coffee break			

Friday 5 September 2025

	Room Aegle B	Room Panacea	Room Aegle A
09:00-10:30	SESSION 16 Advanced Oxidation Processes	SESSION 17 Circular economy and sustainable resources management	SESSION 18 Environmental pollution
10:30-11:00	Session 19 - Plenary speech		
11:00-11:30	<i>Coffee break</i>		
11:30-13:00	SESSION 20 Wastewater treatment (4)	SESSION 21 Plastics in the environment	SESSION 22 Advancing Climate Resilience through Engagement of Citizens: Insights from the CLIMAS Project
13:00-15:00	<i>Lunch break</i>		
15:00-15:30	Session 23 - Plenary speech		
15:30-17:30	SESSION 24 WORKSHOP Analysis of microplastics in Water	SESSION 25 Life Cycle Analysis (LCA)	SESSION 26 Environmental data analysis and modelling
17:30-18:30	Poster session 2 & Coffee break		

Saturday 6 September 2025

	Room Aegle B	Room Panacea	Room Aegle A	Room Acceso
09:00-10:30	SESSION 27 Water and wastewater reuse	SESSION 28 Energy technologies and renewable energy sources	SESSION 29 Agroforestry, Forest and Agricultural Sustainability	SESSION 30 Recycling of materials to new products
10:30-11:00	Session 31 - Plenary speech			
11:00-11:30	<i>Coffee break</i>			
11:30-13:00	SESSION 32 Water treatment	SESSION 33 Circular economy in agriculture and food systems (1)	SESSION 34 Environmental Impact of Maritime Transport – NAVGreen	SESSION 35 Reuse and resources recovery
13:00-15:00	Networking lunch			
15:00-15:30	Session 36 - Plenary speech			
15:30-17:00	SESSION 37 Micropollutant Removal and Circular Water Reuse: Challenges and Opportunities under the Revised Urban Wastewater Treatment Directive	SESSION 38 Circular economy in agriculture and food systems (2)	SESSION 39 Transportation and the environment	SESSION 40 Heavy metals in the environment
17:00-18:00	Poster session 3 & Coffee break			
18:00	Closing session – Awards Ceremony (Room Panacea)			

Poster session 1 | Thursday 4 September 2025 | Topics: Air pollution - Antibiotic resistance – Biomonitoring – Biowaste – Citizen Science – Climate change - Climate change adaptation and resilience - Climate change impacts, vulnerability and risks - Emerging pollutants - Environmental exposures and human health - Environmental health and well-being - Food waste and food loss - Life cycle analysis (LCA) - Pollution control and contaminated sites - Solid waste management - Spatial environmental planning - Sustainability & the SDGs - Sustainable water resources management with nature-based solutions - Transportation and the environment - Urban environment and health - Waste-to-energy - Water and wastewater treatment and reuse - Water policy, management and society - Water and wastewater reuse

Poster session 2 | Friday 5 September 2025 | Topics: Advanced Oxidation Processes - Chemical recycling uptake - Circular economy and industrial symbiosis - Circular Economy And Bioeconomy - Circular economy in agriculture and food systems - Circular Economy in Manufacturing and Industrial Processes - Circular product design: design out waste - ESG (Environmental, Social and Governance) and circular economy - Health and plastics - Macro- and microplastics pollution in coastal waters and rivers - Microplastics in the marine environment - Microplastics in water treatment: fate, toxicity assessment and removal technologies - Plastics in agriculture and aquaculture - Plastics in the environment - Recycling of materials to new products - Reuse and resources recovery - Sustainable production and management of biomass - Wastewater treatment

Poster session 3 | Saturday 6 September 2025 | Topics: Agroforestry, Forest and Agricultural Sustainability - Emerging pollutants - Environmental Biotechnology and Bioenergy - Environmental data analysis and modelling - Environmental Pollution - Forest ecosystems - Heavy metals in the environment - Renewable energy sources – Energy Technologies - Smart cities - Soil and groundwater contamination and remediation - Wastewater treatment - Water treatment

PLENARY LECTURES

Wednesday 3 September 2025 (18:00) | Room Panacea

Climate Change, Water Scarcity, Emerging Contaminants and Microplastics: Global Vision and Local Solutions in the Mediterranean region: The Need for Advanced Water Treatment and Management

by Barceló D., University of Almeria, Spain

Wednesday 3 September 2025 (18:30) | Room Panacea

Resilience by design through water and nature: levers for change in the current policy landscape

by Lopez-Gunn E., ICATALIST

Thursday 4 September 2025 (10.30) | Room Panacea

Climate Law implementation: challenges and barriers

by Papadopoulou M., National Technical University of Athens, Greece

Thursday 4 September 2025 (15.00) | Room Panacea

Advanced analytical strategies for investigating biomagnification of organic micropollutants across food webs

by Thomaidis N., National and Kapodistrian University of Athens, Greece

Friday 5 September 2025 (10.30) | Room Panacea

Zero-waste close-loop biorefinery system for food and yard waste valorization

by Lin C.S.K., City University of Hong Kong, Hong Kong

Friday 5 September 2025 (15.00) | Room Panacea

Locally adapted engineering interventions for preventing plastic pollution from waste: Science, methods and practitioner toolkits

by Velis C., Imperial College London

Saturday 6 September 2025 (10.30) | Room Panacea

Biotechnological upgrading of biogas using green hydrogen as a reducing agent

by Lyberatos G., National Technical University of Athens, Greece

Saturday 6 September 2025 (15.00) | Room Panacea

Nanotechnology processes for environmental protection and solar energy conversion

by Falaras P., National Centre for Scientific Research, Demokritos, Greece

KEYNOTE LECTURES

Thursday 4 September 2025

AI Applications for Wastewater Quality Monitoring for a full-scale sequencing batch reactor plant <i>by Ballesteros F., University of the Philippines Diliman, Philippines</i>	Session 2 Wastewater treatment (1) Room Aegle B, 09:00 – 09:15
The evolution of end-of-life clothing in the waste management sector considering Circular Economy <i>by Zorpas A., Open University of Cyprus, Cyprus</i>	Session 3 Solid waste management Room Panacea, 09:00 – 09:15
Impact of biodegradable bioplastics on anaerobic co-digestion of household organic waste and wastewater sludge <i>by Calabrò P. S., Università Mediterranea di Reggio Calabria, Italy</i>	Session 3 Solid waste management Room Panacea, 09:15 – 09:30
Artificial Intelligence in membrane-based wastewater treatment: Advances in control and optimization <i>by Naddeo V., University of Salerno, Italy</i>	Session 7 Wastewater treatment (2) Room Aegle B, 11:30 – 11:45
Bridging the gap between sustainability and engineering: Challenges and Perspectives <i>by Vlachokostas C., Aristotle University of Thessaloniki, Greece</i>	Session 9 Environmental management and policy Room Aegle A, 11:30 – 11:45
Syngas/CO₂ fermentation as a sustainable way forward: the case study of biomethanation in trickle bed reactors <i>by Skiadas I., Technical University of Denmark, Denmark</i>	Session 13 Environmental Biotechnology and Bioenergy Room Panacea, 15:30 – 15:45
Achieving the twin transition in industrial water use: Challenges and breakthroughs <i>by Arampatzis G., Technical University of Crete, Greece</i>	Session 14 Hydrology and water resources Room Aegle A, 15:30 – 15:45
Exposome, Ultrafine Particles, and Glioblastoma: A New Perspective <i>by Gago Ferrero P., Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Spain</i>	Session 15 Environmental exposures and human health Room Acceso, 15:30 – 15:45

Friday 5 September 2025

Nanotechnology advances in photocatalytic reactors for water treatment and wastewater reuse <i>by Falaras P., National Centre for Scientific Research, Demokritos, Greece</i>	Session 16. Advanced Oxidation Processes Room Aegle B, 09:00 – 09:20
Treatment of water contaminants of emerging concern with advanced oxidation processes <i>by Han C., Inha University, South Korea</i>	Session 16 Advanced Oxidation Processes Room Aegle B, 09:20 – 09:35
ReBoat: Circular Systemic Solution for Sustainable Tourism in European Islands by a Movable Plant on a Boat <i>by Colledani M., Politecnico di Milano, Italy</i>	Session 17 Circular economy and sustainable resources management Room Panacea, 09:15 – 09:30
Direct PHA production from sewage sludge: a scalable strategy for wastewater resource recovery <i>by Mannina G., Palermo University, Italy</i>	Session 20 Wastewater treatment (4) Room Aegle B, 11:30 – 11:45
Forest Resilience, Precipitation, and Ecosystem Service Value: A Correlation and Trend Analysis <i>by Berti-Equille L., French Institute of Research for Development, France</i>	Session 26 Environmental data analysis and modelling Room Aegle A, 16:00 – 16:15

Saturday 6 September 2025

CYANOTECH Project: Sustainable management of toxic cyanobacteria in surface waters

by *G. Antoniou M., Cyprus University of Technology, Cyprus, Cyprus*

Session 27

Water and wastewater reuse

Room Aegle B, 09:00 – 09:15

Electroactive nanowire membranes for enhanced membrane fouling control and phosphorus removal in membrane bioreactors

by *Choo K-H., Kyungpook National University, South Korea*

Session 27

Water and wastewater reuse

Room Aegle B, 09:15 – 09:30

Quaternary treatments in the upgrading of wastewater treatment plants: micropollutant removal and operation reliability

by *Verlicchi P., University of Ferrara, Italy*

Session 37

Micropollutant Removal and Circular Water Reuse: Challenges and Opportunities under the Revised Urban Wastewater Treatment Directive

Room Aegle B, 15:30 – 15:45

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ORAL PRESENTATIONS

Wednesday 3 September

Session 1 | Opening Ceremony

Room Panacea

- 17:00 – 17:15 Welcome speeches
- 17:15 – 17:30 CEST2025 information
- 17:30 – 18:00 Dr David Solomon Jalajel
Recognizing Innovation, Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW)
- 18:00 - 18:30 Barceló D.
[369] Climate Change, Water Scarcity, Emerging Contaminants and Microplastics: Global Vision and Local Solutions in the Mediterranean region: The Need for Advanced Water Treatment and Management
- 18:30 - 19:00 Lopez-Gunn E.
[466] Resilience by design through water and nature: levers for change in the current policy landscape
- 19:30 Welcome cocktail reception

Thursday 4 September

Session 2 | Wastewater treatment (1)

Room Aegle B

Chairs: **Naddeo V., Choo K.H.**

- 09:00 - 09:15 **Keynote speech** Ballesteros E., Lechago H., Eusebio D., Taguba M.
[139] AI Applications in Wastewater Quality Monitoring for a full-scale Sequencing Batch Reactor Plant
- 09:15 - 09:25 Shafiq S.
[252] Nanobiotechnology for the removal of heavy metals from industrial wastewater
- 09:25 - 09:35 Sousa S., Machado C., Salgado E., Esteves A., Dias J., Vilaça J., Pires J.
[38] PhotoBioValue project: Linking N:P Ratios and nitrogen sources to microalgae-based wastewater bioremediation and biomass valorisation
- 09:35 - 09:45 Zajac O., Zubrowska-Sudol M.
[42] Pure vs. hybrid moving bed technology: How aeration strategies affect nitrification kinetics and Comammox bacteria?

09:45 - 09:55	Salgado E., Ribeiro-Souza S., Sousa S., Gonçalves A., Ratola N., Pires J. [105] PhotoBioValue project: Microalgae-bacteria consortium for the bioremediation of urban wastewater in pilot-scale photobioreactors
09:55 - 10:05	Borowska W., Zajac O., Żubrowska-Sudoł M., Dąbrowska N. [77] Aeration Matters: Optimizing Wastewater Treatment While Minimizing N₂O Emissions
10:05 - 10:15	Lingating R., Rollon A. [161] Application of cell immobilization in the batch activated sludge treatment of domestic and poultry wastewater using carbonized coconut shell and carbonized rice hull
10:15 - 10:20	Boguniewicz-Zablocka J., Naddeo V., Zagrobelna D. [310] Benchmarking sustainability in tissue manufacturing: Evaluating bleaching and effluent treatment practices
10:20 - 10:30	Questions and discussion

Session 3 | Solid waste management

Room Panacea

Chairs: **Tlustos P., Calabrò P.S.**

09:00 - 09:15	Keynote speech <u>Zorpas A.</u> , Voukkali I., Stylianou M., Nisiotou C., Sospiro P., Liscio M., Loizia P. [336] The evolution of End-of-Life clothing in the waste management sector considering circular economy
09:15 - 09:30	Keynote speech Ferreri M., Pedullà A., Pangallo D., <u>Calabrò P.</u> [32] Impact of biodegradable bioplastics on anaerobic co-digestion of household organic waste and wastewater sludge
09:30 - 09:40	Bush J., Mavroulidou M., Sopeoglou E. [75] Impact of straw substrate particle size on the mechanical properties of mycelium based composite materials
09:40 - 09:50	Senekane M. [21] Indigenous systems of solid waste management: A perspective of the African continent rural areas
09:50 - 10:00	D'Amato M., Buonerba A., Oliva G., Zarra T., Naddeo V., Belgiorno V. [109] Recovery of aged plastics from waste stored in bales
10:00 - 10:10	Lourmpas N., Kyriakakis E., Efthimiadou E., Papanikos P., Filippidis A., Lekkas D., Alexopoulos N. [358] Valorisation of Marine Polypropylene Waste: Integrity Assessment and Recycling Performance

- 10:10 - 10:20 Akyildiz S., Bellopede R., Marini P., Hajidela S.
[58] Circular Economy in Textiles: evaluating mechanical separation techniques for recycling poly-cotton blends
- 10:20 - 10:25 Batinić B., Živančev M., Berežni I., Marinković T.
[237] A model for calculating required equipment for introduction of waste source separation system at municipal level – Case Study of Serbia
- 10:25 - 10:30 Hassan N., Jacksi D.
[450] Assessing public awareness and environmental impact of solid waste disposal in Duhok Governorate, Kurdistan Region of Iraq

Session 4 | Air pollution

Room Aegle A

Chairs: Zarra T., Giannakaki E.

- 09:00 - 09:10 Opwis K.
[3] Detox NH₃ Textiles - Clean Air for Pig, Man & Environment
- 09:10 - 09:20 Tsiampartas A., Christodoulou M., Vasiliades M., Agapiou A., Stylianou M.
[72] Mitigating VOCs and Odor with Activated Biochar from Woody Waste
- 09:20 - 09:30 Cernuschi S., Lonati G., Puricelli S., Tardivo R., Ozgen S., Signorini S.
[141] Multiyear monitoring of ultrafine particulate matter emissions from a modern full scale WtE plant at real operating conditions.
- 09:30 - 09:40 Diamanti V., Gkaras S., Triantafyllou A.
[212] Exploring the patterns of particle-bound PAHs in ambient air of an urban agglomeration (first results)
- 09:40 - 09:50 Kotrikla A., Salaveri S., Maroulis C.
[176] Factors Influencing Particulate Matter Variability in an Urban Street in Chios
- 09:50 - 10:00 Raso L., Della Rocca M., Bettini M., Oliva G., Belgiorio V., Naddeo V., Zarra T.
[184] Low-cost smart sensors for PM monitoring in ambient air: analysis and comparisons
- 10:00 - 10:10 Alzaabi M., El Sergany E.
[345] Comparative Risk Assessment of Commuting Traffic Congestion in Dubai
- 10:10 - 10:15 Giaquinto P., Della Rocca M., Belgiorio V., Naddeo V., Zarra T.
[185] Odour monitoring as an unconventional tool for sewage sludge management in wastewater treatment plants
- 10:15 - 10:30 **Questions and discussion**

Session 5 | Climate change adaptation and resilience

Room Acceso

Chairs: **Papadopoulou M., Lopez Gunn E.**

09:00 - 09:10 Osman H., El Sergany M., Nurelhuda N.

[341] Climate Change in UAE: Evaluating Mitigation Effectiveness and Social Dimensions in Adaptation Strategies

09:10 - 09:20 Tzouvaras N.

[102] Biomass-related issues and potential windfall profits in the European Union Emissions Trading System

09:20 - 09:30 Charatsari C., Lioutas E., Sergaki P., Nastis S., Michailidis A.

[383] Steps to promote Agrifood Twin Transitions: From identifying innovation paths to enhancing future competencies

09:30 - 09:40 Cicalese F., Grimaldi M., Fasolino I.

[37] Urban settlements adaptation. Measures for neighbourhood plans

09:40 - 09:50 Boulogiorgou D., Kaldellis J.

[201] EU Climate Law, Recovery and Resilience Policy: Outcomes for Greece First Energy Transition Steps.

09:50 - 10:00 Boulogiorgou D.

[204] Innovative Energy Projects and Policies for the Energy Transition of Small Greek Islands

10:00 - 10:10 Pantera A., Papadopoulos A., Lubczyński M., Pisani B., Andreu A., Mendes M., Rolo V., Moreno G., Salbitano F., Mosquera-Losada R., Samper J.

[273] Nature-based Solutions: evolution through time in the Mediterranean Basin

10:10 - 10:20 Grigoriadou E., Roussos O., Voudouri A., La Jeunesse I., Hatzilacou D., Papadopoulou L., Papadopoulou M.

[342] From site-specific to the next day: transferring local knowledge to climate resilient management – NECCA paradigm

10:20 - 10:30 **Questions and discussion**

Session 6 | Plenary session

Room Panacea

10:30 - 11:00 Papadopoulou M., Voudouri A.

[478] Climate Law implementation: challenges and barriers

Session 7 | Wastewater treatment (2)

Room Aegle B

Chairs: **Ballesteros F., Shafiq S.**

- 11:30 - 11:45 **Keynote speech** Cairone S., Zarra T., Belgiorno V., Naddeo V.
- [468] Artificial Intelligence in Membrane-Based Wastewater Treatment: Advances in Control and Optimization**
- 11:45 - 11:55 Lin Y., Yupo L., Po-Chih T., Shu-Yuan P.
- [285] Design and Evaluation of a Scalable Shock Wave Electrodialysis with Multi-Cell Stack for Efficient Desalination**
- 11:55 - 12:05 Petsi P., Sioutopoulos D., Sarasidis V., Patsios S., Plakas K.
- [258] Exploitation of industrial wastewater streams through bipolar electrodialysis for NaOH and HCl production**
- 12:05 - 12:15 Athanasiadi A., Sioutopoulos D., Sarasidis V., Lekkas M., Patsios S., Plakas K.
- [262] Anaerobic/Aerobic membrane bioreactors for wastewater treatment of pulp and paper industry**
- 12:15 - 12:25 Palangan V., Lu M., Ballesteros F.
- [277] Effect of Iron(II) on Nickel Removal via Fluidized-Bed Homogeneous Crystallization Technology**
- 12:25 - 12:35 Ronca A., Galinha C., Crespo J.
- [315] Nanofiltration for the treatment of bleaching effluents from the pulp and paper industry: A Case Study**
- 12:35 - 12:45 Panepinto D.
- [133] Analysis of the PFAS treatment, regulation and experimental investigation**
- 12:45 - 12:55 Lu P., Glasgow G., Lay M.
- [333] Performance of sequencing batch reactors for the treatment of high ammonium concentration landfill leachate**
- 12:55 - 13:05 Bilaro V., Bilaro A.
- [215] Investigating the Potential of Phytoremediation-assisted Treatment of Rainwater for Domestic Use using Selected Agro-wastes as Filter Media**

Session 8 | Energy recovery from waste

Room Panacea

Chairs: **Vakalis S., Gavala H.**

- 11:30 - 11:40 Koumpakis D., Vlachokostas C., Michailidou A., Savva C.
- [374] Turning Plastic Waste into Power: Pyrolysis for Sustainable Industrial Energy**

- 11:40 - 11:50 Nayak J., Khan A., Ranade V., Collins M.
- [392] Optimized hydrodynamic cavitation-based Pretreatment Strategies to enhance residual Biogas Yield from Solid Digestate and Struvite Recovery from Liquid Fraction**
- 11:50 - 12:00 Vakalis S., Liakos D., Papaioannou I., Stefanidis G.
- [431] Microwave plasma pyrolysis for the valorization of VFA extracts from HTC process water**
- 12:00 - 12:10 Kostopoulou N., Pappa G., Voutsas K., Liakos D., Prinos N., Vakalis S., Voutsas E.
- [463] Modelling of Hydrogen Generation from Woody Biomass in a Novel Modular Downdraft Gasifier–WGS–PSA System**
- 12:10 - 12:20 Kanellos G., Fragkos O., Flari D., Tremouli A., Lyberatos G.
- [98] The synergistic effect of H₂ injections and applied potential on biogas production during the treatment of industrial potato processing wastewater in a Microbial Electrolysis Cell-assisted Anaerobic Digestion system**
- 12:20 - 12:30 Fragkos O., Kanellos G., Kotsikas E., Pournara E., Vlysidis A., Tremouli A., Lyberatos G.
- [96] A microbial electrolysis cell-assisted anaerobic digestion process for enhanced treatment of industrial potato processing wastewater**
- 12:30 - 12:40 Romano F., Oliva G., Belgiorio V., Naddeo V., Zarra T.
- [193] Biohydrogen production through dark fermentation of organic waste: evaluation of pretreatment methods**
- 12:40 - 12:50 Adefeso I.
- [316] Characterisation of date seeds for bioresources application**
- 12:50 - 13:00 Andronikou M., Vyrides I.
- [473] A Metal-Assisted circular system for CO₂ utilization and methane enhancement in anaerobic digestion**
- 13:00-13:10 Emata J., Ballesteros J., Chen M.
- [276] Valorization of Sewage Sludge through Hydrothermal Carbonization for the Synthesis of Zinc Oxide Nanoparticles**

Session 9 | Environmental management and policy

Room Aegle A

Chairs: El Sergany M., Vagiona D.

- 11:30 - 11:45 **Keynote speech** Vlachokostas C.

[460] Bridging the gap between sustainability and engineering: Challenges and Perspectives

11:45 - 11:55	Tsangas M., Zorpas A., Panayi P., Tofaris A.
	[41] The correlation of NEP scale score to energy consumption attitudes
11:55 - 12:05	Gabuco K., Clemente E.
	[158] Impacts of Quarry Blasting on Water Sustainability: Assessment of Social Acceptability in the Municipalities of Camalig and Guinobatan, Albay
12:05 - 12:15	Bari M., McCarthy E., Broderick E., Fenton O., Tuohy P.
	[123] Assessment and mapping of the drainage status of Ireland's peatlands
12:15 - 12:25	Kontos K., Gounaris N., Papalampros L., Ioannou A., Dimitriou D., Probonas M., Antaloudaki E., Baxevas P., Pylara A., Chantzistroutsou X., Spyropoulos A.
	[190] Restoration and protection actions of the Priority Habitat 9370* "Palm groves of Phoenix" in Crete - LIFE PHOENIX
12:25 - 12:35	Vagiona D.
	[265] Subjective and Objective Weights in Renewable Energy Sources Siting Problems
12:35 - 12:40	El Sergany D., Alam Z., Noor F.
	[353] Impact of environmental sustainability course on enhancing environmental knowledge among university students in UAE
12:40 - 12:45	Gounaris N., Kontos K., Galatsidas S., Georgiadis C., Vlachaki D., Papalampros L.
	[191] Strategic Environmental Management in Mount Athos under Climate Change, LIFE STEMMA ATHOS
12:45 - 12:50	Alzamil W.
	[300] Transformation of Developmental Housing Towards SDGs in Saudi Arabia
12:50 - 12:55	Corpus R., Bayani M.
	[14] Decomposition analysis of ASEAN countries CO₂ emissions from electricity generation
12:55 - 13:00	Bratani D., Vagiona D.
	[83] The use of indicators as a tool in environmental impact assessment studies of Renewable Energy Sources projects

Session 10 | Climate change impacts, vulnerability and risks

Room Acesso

Chairs: Miškelytė D., Pantera A.

- 11:30 - 11:40 Miškelytė D., Zaltauskaite J., Manusadzianas L.
- [69] Elevated temperature impact on toxicological effects of pesticides, antimicrobials and their mixtures to duckweed *Lemna minor***
- 11:40 - 11:50 Kelesidi K., Tsouchlaraki A.
- [394] Geocoding of fire events in the mountainous region of Ymittos using GIS**
- 11:50 - 12:00 Lougkovois R., Gkotsis G., Parinos C., Hatzianestis I., Nika M., Pavlidou A., Thomaidis N.
- [177] Storm Daniel extreme flood event in Thessaly, Greece: Assessing the pollution status of the impacted coastal marine areas through extended screening of emerging contaminants using LC-TIMS-QTOF MS**
- 12:00 - 12:10 Theodosiou K., Papageorgiou K.
- [251] Measuring climate data in school environment: Analysis of Climatic Trends on the island of Chios (2014–2025)**
- 12:10 - 12:20 Ferreiro-Domínguez N., Santiago-Freijanes J., Rigueiro-Rodríguez A., Mosquera-Losada M.
- [59] Restoration of burned forest areas in Galicia (NW Spain)**
- 12:20 - 12:30 Bilaro A., Gonzales A.
- [160] Geotechnical Parametric Estimation and Susceptibility Analysis of Bicol University East Campus, Legazpi City, Albay, Philippines**
- 12:30 - 12:40 Kyprianou G.
- [118] Fast Fashion and Sustainability Challenges: A Critical Review with Insights from Cyprus**
- 12:40 - 13:00 **Questions and discussion**

Session 11 | Plenary session

Room Panacea

- 15:00 - 15:30 Thomaidis N.
- [464] Advanced analytical strategies for investigating biomagnification of organic micropollutants across food webs**

Session 12 | Wastewater treatment (3)

Room Aegle B

Chairs: **Mannina G., Panepinto D.**

15:30 - 15:40 Gajendra N., Török A., Avsar D., Pelkonen M., Dinis M., Vila M., Yilmaz D., Levei E., Ferrando-Climent L.

[398] Optimizing biological consortia for mining wastewater treatment

15:40 - 15:50 Atega M., Detras M., Eusebio R., Borines M., Maalihan R., Bautista-Patacsil L.

[403] Development of 3D-Printed permeable reactive barrier adsorbents utilizing zeolite composites for Copper (II) removal in acid mine drainage

15:50 - 16:00 Rollon A., Lingating R., Pimentel J., Areo H., Ibias K., Mamugay R., Dela Cruz I.

[135] Treatment of high-strength domestic wastewater in anaerobic, aerobic and anoxic fed-batch process system

16:00 - 16:10 Lee Y., Jeong S.

[313] Application of iron oxide-coated membranes in permeable block systems for advanced removal of micro- and nanoplastics

16:10 - 16:20 Milojković J., Wurzer C., Lopičić Z., Šoštarić T., Koprivica M., Vuković N., Masek O.

[179] Biochar derived from the invasive aquatic plant *Myriophyllum spicatum*: Characterization via SEM-EDX and application in lead removal

16:20 - 16:30 Russo A., Oliva A., Cesaro A.

[181] Unlocking biomethane and biohydrogen potential of lipid-rich wastewater using anaerobic granular sludge

16:30 - 16:35 Rosil S.

[283] Evaluating the Degradation Potential of Alkaliphilic Bacterial Isolate into the Distillate-Derived Strong Alkaline Wastewater from PGME Processes using Batch Experiments

16:35 - 16:40 Ayedi K., Cecchini F., Innocenzi V., Ippolito N., Mazziotti di Celso G., Prisciandaro M.

[326] Winemaking Wastewater Treatment: Hydrodynamic Cavitation and Coagulation-Flocculation

16:40 - 16:45 Amro H., Abu Sirria A., Ahmad O.

[268] Simulation of Treatment Process of Greywater from Palestinian Households

16:45 - 16:55 Chowdhury S.

[235] Machine Learning (ML) Applications in Water Treatment: Possibilities and Advantages

16:55 - 17:30 **Panel Discussion**

Session 13 | Environmental Biotechnology and Bioenergy

Room Panacea

Chairs: **Voutsas E., Tremouli A.**

- 15:30 - 15:45 **Keynote speech** Skiadas I.
- [290] Syngas/CO₂ fermentation as a sustainable way forward: the case study of biomethanation in trickle bed reactors**
- 15:45 - 15:55 Ali R., Yde L., Ashraf M.
- [302] Optimized Biomethanation of Hydrogen and Carbon Dioxide via Inoculum Selection and Pre-processing in a Thermophilic Trickle-Bed Reactor**
- 15:55 - 16:05 Papadopoulou K., Pavlopoulos C., Riglis C., Tsilifonis E., Markopoulou A., Fotopoulos D., Papathanasiou A., Lyberatos G.
- [436] Biogas upgrade with green hydrogen in a semi-pilot trickle bed reactor**
- 16:05 - 16:15 Ramos A.
- [18] Assessing the effect of temperature and biomass composition for hydrogen production through gasification**
- 16:15 - 16:25 Mariniello A., Oliva G., Belgiorno V., Naddeo V., Zarra T.
- [225] Optimization of advanced bio-based carbon capture and utilization system through technological development and comparison**
- 16:25 - 16:35 Karyofyllidou C., Spyridonidis A., Diamantis V., Galiatsatos I., Stathopoulou P., Tsiamis G., Stamatelatou K.
- [414] Biogas upgrade to biomethane in trickling bed reactors: Process optimization under mesophilic conditions**
- 16:35 - 16:45 De Paola S., Cairone S., Oliva G., Cardona G., Zarra T., Belgiorno V., Naddeo V.
- [400] Simulation-based design of pressure swing adsorption for methane and nitrogen separation in biogas upgrading**
- 16:45 - 16:55 Ali A., Ali R., Yde L., Ashraf M.
- [297] Biomethanation of Syngas with a focus on CO Conversion using mixed microbial cultures in a thermophilic trickle bed reactor**
- 16:55 - 17:05 Theodosi Palimeri D., Emmanouilidis M., Mousouri F., Lyberatos G., Vlysidis A.
- [175] Optimization of biogas production and in-situ upgrading via hydrogenotrophic methanogenesis in a lab-scale UASB reactor**
- 17:05 - 17:30 **Panel Discussion**

Session 14 | Hydrology and water resources

Room Aegle A

Chairs: Lekkas D.F., Baltas E.

- 15:30 - 15:45 **Keynote speech** Arampatzis G.
- [470] Achieving the twin transition in industrial water use: Challenges and breakthroughs**
- 15:45 - 15:55 Sismanidi M., Kokkinaki L., Panagopoulos Y.
- [230] Optimizing the allocation of bioenergy crops within a typical Greek cropping system to balance sustainable biomass production and nitrates water pollution mitigation**
- 15:55 - 16:05 Kokkinaki L., Sismanidi M., Panagopoulos Y.
- [231] Optimum selection and placement of agricultural best management practices in Pinios river basin for the mitigation of nitrates water pollution and water scarcity**
- 16:05 - 16:15 Farmaki P., Tranoulidis A.
- [407] Reclaiming Water: assessing the water resources released by the decommissioning of lignite facilities in Western Macedonia**
- 16:15 - 16:25 Avdullahi S.
- [362] Establishing a groundwater monitoring network in the Drini i Bardhe River Basin, Kosovo: A focus on water level and temperature monitoring**
- 16:25 - 16:35 Leva L., Mariniello A., Giuliani S., Russo M., De Riso L., Aloia A., Romano G., Naddeo V., Zarra T.
- [335] Advanced and integrated multiparametric tool for proactive and continuous environmental monitoring and control of surface water bodies in sensitive areas**
- 16:35 - 16:45 Susnik J., Haupt B., Kristensen D., Simpson G., Trabucco A., Roson R., Faizan M.
- [34] System dynamics modelling to explore policy impact in the water-energy-food-ecosystems nexus in the Inkomati-Usuthu Water Management Area, South Africa**
- 16:45 - 16:55 Riikonen J., Tiihonen T., Rahmani A., Nissinen T., Haluska O., Tamarov K., Pennanen T., Turhanen P., Vepsäläinen J., Lehto V.
- [461] On-site elemental analysis of environmental waters using portable XRF**
- 16:55 - 17:00 Harutyunyan A., Singh A., Khachatryan H., Ghazaryan K.
- [198] Comparative hydrochemical assessment of groundwater quality from different aquifers for irrigation purposes: Study area Armavir Region in Armenia**

17:00 - 17:05 Susnik J., Avellan T., Munaretto S., La Jeunesse I., Jewitt G.

[35] The water-energy-food nexus, the relationship with ecosystems, and its role in supporting society

Session 15 | Environmental exposures and human health

Room Acceso

Chairs: Thomaidis N., Oliva G.

15:30 - 15:45 **Keynote speech** Gago-Ferrero P., Gutierrez-Martin D., Nika M., Vidal-Sarro N., Bruna J., Majós C., Pons A.

[27] Exposome, Ultrafine Particles, and Glioblastoma: A New Perspective

15:45 - 15:55 Chowdhury S.

[234] N-nitrosodimethylamine (NDMA) in Drinking Water: A Probabilistic Health Risk Assessment in Asia

15:55 - 16:05 Soursou V., Andreu Perez V., Picó Y., La Nasa J., Modugno F., Giannarelli S., Campo J.

[284] The pollution before the flood: Microplastics and PAHs in water, sediment and fish from Júcar River basin (E Spain)

16:05 - 16:15 Klosok-Bazan I.

[334] Trihalomethanes in Swimming Pools: Modern Strategies for Surveillance and Risk Assessments

16:15 - 16:25 Pandey J., Naaz N.

[281] Spatial Distribution of Polycyclic Aromatic Hydrocarbons in Ganga River (India) and Health Risk to Human Consumers Through an Edible Fish *Labeo rohita*

16:25 - 16:35 Nguyen T., Záray G., Endrédi A., Streli C., Ingerle D., Radtke M., Guilherme Buzanich A., Fodor F., Dobosy P.

[92] Iodine biofortification of red radish (*Raphanus sativus* L.) cultivating on hydroponic system

16:35 - 16:45 Oliva G., Della Rocca M., D'Amato M., Di Biase E., Zarra T., Naddeo V., Belgiorio V.

[457] Human Health Risk Assessment and Action Plans for PM10 Pollution: a new integrated methodology for Campania Region (Italy)

16:45 - 16:55 D'Elia L., Roversi S., Pisani S., Montano L., Motta O., Naddeo V.

[440] Environmental Pollution and the Mediterranean Diet: A Study on Health and Fertility

16:55-17:00 Çelebi H., Bahadır T., Şimşek I., Tulun T.

[106] Environmental challenges of plastic waste pollution in the COVID-19 era and Outlook

Friday 5 September

Session 16 | Advanced Oxidation Processes

Room Aegle B

Chairs: **Falaras P., Antoniou M.**

09:00 - 09:20 **Keynote speech** Theodorakopoulos G., Tsoukleris D., Athanasekou C., Romanos G., Falaras P.

[321] Nanotechnology advances in photocatalytic reactors for water treatment and wastewater reuse

09:20 - 09:35 **Keynote speech** Choi A., Choi C., Lee H., Han C.

[462] Treatment of water contaminants of emerging concern with advanced oxidation processes

09:35 - 09:45 Clarizia L.

[384] Hydrogen Generation from Wastewater-Derived Organics via Solar Photocatalysis Using Low-Cost Cu-TiO₂ Composites

09:45 - 09:55 Sioulas S., Lykos C., Konstantinou I., Albanis T.

[239] Synthesis and application of Z-Scheme g-C₃N₄/g-C₃N₅ heterotype homojunction for aquatic pollutants degradation

09:55 - 10:05 Tsiarta N., Chatziathanasiou E., Hadjicosti A., Antoniou G. M.

[157] Mitigating Cyanobacterial Blooms via Ozonation: Insights into Species Sensitivity and Treatment Efficacy

10:05 - 10:15 Roccaro P., Fazzino F., Gagliano E., Santoro D.

[244] Coupling artificial neural network and fluorescence spectroscopy to control CEC removal during AOPs

10:15 - 10:20 Aboukhater A., Kumar M., Hasan S.

[153] Novel Heterostructured Holey Graphene-NiTiO₃/TiO₂ Nanocomposite Enabled Photocatalytic Mixed Matrix Membranes for Effective Antibiotics Removal

10:20 - 10:30 **Questions and discussion**

Session 17 | Circular economy and sustainable resources management

Room Panacea

Chairs: **Zorpas A., Cesaro A.**

09:00 - 09:15 **Keynote speech** Colledani M.

[477] ReBoat: Circular Systemic Solution for Sustainable Tourism in European Islands by a Movable Plant on a Boat

09:15 - 09:25	Liscio M., Bregoli D., Narang G., Perugini F., Sospiro P. [64] Firm Size and Sustainability Certifications: Understanding Business Economic Drivers in Certification Adoption
09:25 - 09:35	Koumpakis D., Michailidou A., Savva C., Vlachokostas C., Barmpalexis P., Achillas C. [195] Innovating pharmaceuticals with sustainable 3D printing for personalized healthcare
09:35 - 09:45	Koumpakis D., Vlachokostas C., Savva C., Michailidou A., Barmpalexis P., Achillas C. [373] Customizable and Waste-Free Pharmaceuticals: PLA-Carbon Pills from Biomass Pyrolysis via FDM 3D Printing
09:45 - 09:55	Esteves A., Gonçalves A., Vilar V., Pires J. [39] Sustainable Optimisation of Microalgal Biomass Production: Insights from the PhotoBioValue Project
09:55 - 10:05	Avdullahi A., Ademi V. [363] From Necessity to Conscious Choice: Second-Hand Clothing and the Environmental Impact of the Fashion Industry
10:05 - 10:10	Corpus R., Bayani M., Cansino J. [12] Integrating ESG and Social Economy Principles into Philippine Curriculum: A Framework for Sustainable Development
10: - 10:30	Questions and discussion

Session 18 | Environmental pollution

Room Aegle A

Chair: **Avdullahi S., Mystrioti C.**

09:00 - 09:10	Dobosy P., Orenibi E., Illés Á., Sandil S., Endrédi A., Szekeres J., Zárny G. [65] Distribution of lithium and fluorine containing compounds in the Hungarian section of the Danube River
09:10 - 09:20	Tseliou E., Mystrioti C., Xenidis A., Papassiopi N. [228] <i>Cynara cardunculus</i> as a sustainable solution for phytoremediation of antimony contaminated areas.
09:20 - 09:30	Skylaki E., Zachariadou A., Genitsaris S., Parinos C., Proios K., Hatzianestis I., Velaoras D., Moustaka-Gouni M., Gogou A. [243] PAHs-contaminated water and sediment marine habitats shape microbial diversity and community structure in a eutrophic multi-stressed coastal system

09:30 - 09:40	Andreu V., Campo J.
	[292] The Anthropocene and the wetlands: Pharmaceuticals and trace elements interactions in a Mediterranean wetland (L' Albufera, Spain).
09:40 - 09:50	Puddu M., Beretta G., Saponaro S., Sezenna E.
	[314] Biosurfactants and bioemulsifiers: from contaminated soils to remediation via food-waste valorization.
09:50 - 10:00	Kashyap A., Sonkar V., Thatikonda S.
	[356] Does the coexistence of common antibiotic and metal fuel resistance genes and reshape bacterial community in polluted rivers?
10:00 - 10:10	Yang D., Paiste P., Konist A., Järvik O.
	[409] Multi-analytical investigation of oil shale and its ash fractions: trace element partitioning and environmental implications
10:10 - 10:15	Ivanov G., Dimov A.
	[189] First gravimetric detection of a PFAS contaminant in water
10:15 - 10:20	Wu H., Nikolaou A., Vagi M.
	[401] A preliminary approach for the detection of marine pollutants by UV spectroscopy – application to seawater samples from Mytilene, Greece
10:20 - 10:25	Margaryan G., Singh A., Khachatryan H., Ghazaryan K.
	[200] An extensive analysis of salinity tolerance of <i>Portulaca oleracea</i> L. for sustainable agriculture
10:25 - 10:30	Questions and discussion

Session 19 | Plenary session

Room Panacea

10:30 - 11:00	<u>Lin C.</u> , Mou J., Que Z., Sun Z., Wang X., Molly Meng-Hung L., Cheng S., Leu S., Xu C.
	[437] Zero-waste close-loop biorefinery system for food and yard waste valorization

Session 20 | Wastewater treatment (4)

Room Aegle B

Chairs: **Palenzuela Rollon A., Zarra T.**

11:30 - 11:45	Keynote speech <u>Mannina G.</u> , Mineo A.
	[306] Direct PHA production from sewage sludge: a scalable strategy for wastewater resource recovery

11:45 - 11:55	Avsar D., Pelkonen M., Gajendra N., Angyus B., Dinis M., Vila M., Yilmaz D., Senila M., Ferrando-Climent L.
	[397] Investigation of waste-derived adsorbents for removal of NORM and non-regulated elements from mining wastewater
11:55 - 12:05	Ravina M., Marotta E., Zanetti M.
	[132] Testing adsorption properties of natural zeolites for nutrients in wastewater
12:05 - 12:15	Kharraz J., Hasan S.
	[206] Advancing membrane distillation: Multi-channel designs for enhanced energy efficiency and performance
12:15 - 12:20	Abuhatab F., Hasan S.
	[207] Sustainable desalination through eco-friendly membrane technology: Enhancing performance with biodegradable polymers and green solvents
12:20 - 12:25	Jimenez N., Cruz M.
	[210] Recovery of fluoride using fluidized-bed homogeneous crystallization process with aluminum sulfate as precipitant; validation with industrial wastewater
12:25 - 12:30	Vallesteros N., Bukuhan G., Caballes J., Ballesteros F.
	[155] Use of wastewater-based epidemiology data in an artificial neural network to estimate type 2 diabetes mellitus prevalence
12:30 - 12:35	Tolentino J.
	[159] Potential phytoremediation of municipal slaughterhouse wastewater using native tanobong grass (<i>Arundo Naya</i> J. Koeneg ex Steudel)
12:35 - 12:45	Deromol J., Ballesteros F., Wu S.
	[275] Enhanced Long-Term Bioelectricity Production by <i>Shewanella oneidensis</i> MR-1 with <i>Pseudomonas</i> Strains and Ammonium-Oxidizing Bacteria
12:45 - 12:50	Sawalha H., Rjoub I., Yassin M.
	[266] Treatment of greywater from households in Palestine
12:50 - 12:55	Jabari M., Al-Zaghari A., AL-White Y.
	[267] Greywater characterization and treatment option in Palestine
12:55 - 13:00	Maceda M.
	[259] Sustainable nature-based solution centralized sewage treatment plant & septage collection project for a first-class municipality in the Philippines
13:00 - 13:15	Questions and discussion

Session 21 | Plastics in the environment

Room Panacea

Chairs: **Togia A., Lekkas D.F.**

11:30 - 11:40 Záray G., Tserendorj D., Petrics M., Sandil S., Károly Á., Dobosy P.

[63] Microfibers in the riverine environment

11:40 - 11:50 Bellopede R., Balestra V., Bortun G.

[68] Microplastics and microfibres in marine environments: characteristics and concentrations in submerged sediments

11:50 - 12:00 Astel A., Piskula P.

[82] Can the Fulton and hepatosomatic indexes be good indicators of charity of the Baltic fish according to microplastics pollution?

12:00 - 12:10 Legan M., Žgajnar Gotvajn A.

[87] Leachates from Recycled PET Plastic Concrete: Phytotoxicity and characterization

12:10 - 12:20 Apostolidou S., Galinou - Mitsoudi S., Savvidis Y., Papadimitriou C.

[415] Microplastics in the estuarine area of the Pineios River: Seasonal trends and variability

12:20 - 12:30 Campo J., Alvarez-Ruiz R., Andreu V.

[304] Influence of microplastics in the bioconcentration and depuration of organic pollutants in European eels

12:30 - 12:40 Kontos A., Campanos D., Kouvara K., Geraga M., Xirotagarou P., Papatheodorou G.

[329] Shallow coastal litter in South Aegean Sea islands: abundance and sourcing

12:40 - 12:50 Kouvara K., Xirotagarou P., Christodoulou D., Dimas X., Ioakeimidis C., Geraga M., Papatheodorou G.

[371] Benthic marine litter in three Greek gulfs: Are mean density estimates truly representative?

12:50 - 12:55 Kamali H., El Khatib A., Nikolaou A., Tzoraki O., Kitsiou D.

[410] Detection/evaluation tools for plastic pollution: application for coastal areas and streams of Mytilene, Greece

12:55 - 13:00 **Questions and discussion**

Session 22 | Advancing Climate Resilience through Engagement of Citizens: Insights from the CLIMAS Project

Room Aegle A

Chairs: **Polydoropoulou A., Kotrikla A.**

11:30 - 11:40 Kotrikla A., Fameli K., Polydoropoulou A., Ebrahimi Pour H., Veeckman C., Mpontozis D., Priniotaki G., Mačiulienė M., Gulevičiūtė G., Rahman A., Di Ciommo F., Kovaitė K., Skaržauskienė A.

[454] Citizen-Collaborative Future Scenario Building Methodology

11:40 - 11:50 Priniotaki G., Fameli K., Kotrikla A., Polydoropoulou A., Mpontozis D., Di Ciommo F., Rahman A., Skaržauskienė A., Mačiulienė M., Gulevičiūtė G.

[442] Empowering Participatory Climate Governance: The CLIMAS Toolbox for Citizen-Driven Adaptation Strategies in Europe

11:50 - 12:00 Fameli K., Kotrikla A., Polydoropoulou A., Priniotaki G., Mpontozis D., Di Ciommo F., Skaržauskienė A., Mačiulienė M., Gulevičiūtė G.

[443] Evaluation Approach & Impact of Climate Assemblies

12:00 - 12:10 Fameli K., Kotrikla A., Polydoropoulou A., Priniotaki G., Mpontozis D., Mačiulienė M., Gulevičiūtė G., Hoffman J., Schaefer C., Apine A., Strazdiņa I., Di Ciommo F.

[218] Measuring the Impact of Climate Assemblies Through Participant Surveys

12:10 - 12:20 Orfanou A., Alexopoulos C., Karelis C., Klontza E., Lekkas D., Charalalabidis Y.

[451] Estimation of Carbon Footprint using citizen science: Insights from COMPAIR project

12:20 - 12:30 Orfanou A., Klontza E., Vakalis S., Voukkali I., Zorpas A., Lekkas D.

[452] The “waste management generation” factor: A critical parameter for assessing the carbon footprint of the hospitality industry

12:30 - 13:00 **Panel Discussion**

Session 23 | Plenary session

Room Panacea

15:00 - 15:30 Velis C.

[480] Locally adapted engineering interventions for preventing plastic pollution from waste: Science, methods and practitioner toolkits

Session 24 | Workshop - Analysis of microplastics in water

Room Aegle B

Chair: **Barcelo D.**

15:30 - 16:00 **PART 1. Introduction**

16:00 - 16:30 **PART 2. Sampling, Extraction and Analysis**

16:30 - 17:00 **PART 3. Ecotoxicology and Human Health Risk**

17:00 - 17:30 **PART 4. Remediation Technologies and Sustainable Management**

Session 25 | Life Cycle Analysis (LCA)

Room Panacea

Chairs: **Vlachokostas C., Voukkali I.**

15:30 - 15:40 Ahmed S., Liscio M., Sospiro P., Voukkali I., Zorpas A.

[48] Advancing Organisational Life Cycle Assessment in the Fashion Industry: Strategies for Sustainable Corporate Practices

15:40 - 15:50 Karolinczak B., Żubrowska-Sudoł M.

[137] LCA of methods increasing energy self-sufficiency of small wastewater treatment plants

15:50 - 16:00 Maccanti M., Spinelli D., Ciolpan E.

[138] Development of industrial bio-based systems: BIORADAR Project

16:00 - 16:10 Savva C., Vlachokostas C., Mertzanakis C., Michailidou A., Toufexis C., Koumpakis D., Koidis C., Kalaitzidis A., Makavou K., Aidonis D., Achillas C.

[222] Enhancing Agricultural Sustainability and Certification through Real-Time LCA: A Case Study on Circular Economy in Wheat Production

16:10 - 16:20 Roussis P., Vasileiou E., Lazaridou I., Karanika A., Skarvelis P., Vourdas N., Alexopoulos N.

[331] Economic analysis and environmental impact of anti-corrosive protection systems in a full-scale aeronautical fuselage part from aluminium – copper – lithium alloy

16:20 - 16:30 Savva C., Michailidou A., Vlachokostas C., Koumpakis D., Toufexis C., Kandylakis C.

[376] From Biogas to Propulsion and Power: A Life Cycle Perspective on Fuel Synthesis and CHP Integration

16:30 - 16:40 Gievers F., Walz M., Loewe K.

[216] Environmental impacts of cereal straw pellets in biogas systems: A comparative life cycle assessment

16:40 - 16:50 Achillas C., Vlachokostas C., Mallidis I., Tzetzis D., Kotsoglou A., Michailidou A., Savva C., Aidonis D.

[50] A sustainable approach to smart manufacturing: The IndustriSphere digital twins initiative

16:50 - 17:00 Eker S., Çokay E.

[114] Environmental and Economic Evaluation of Biohydrogen Production from Various Feedstocks

17:00 - 17:30 **Panel Discussion**

Session 26 | Environmental data analysis and modelling

Room Aegle A

Chair: **Kolovogiannis V., Arampatzis G.**

- 15:30 - 15:45 **Keynote speech** Berti-Equille L., Nwachukwu P.

 [53] Forest resilience, precipitation, and ecosystem service value: A correlation and trend analysis
- 15:45 - 15:55 Alexakis K., Benekis V., Kokkinakos P., Askounis D.

 [309] Towards optimal building retrofits: A multi-objective optimisation framework using genetic algorithms and EnergyPlus
- 15:55- 16:05 Aristovnik A., Ravšelj D., Babšek M.

 [382] Artificial Intelligence in Public Administration for Environmental Sustainability: An integrative review of research and practice
- 16:05 - 16:15 Relvas H., Martins V., Lopes D., Cirne P., Miranda A.

 [317] A Spatial platform for predicting health impacts of air pollution
- 16:15 - 16:25 Cairone S., Zarra T., Belgiorno V., Yip N., Naddeo V.

 [359] Advancing Temperature Swing Solvent Extraction Desalination with Machine Learning
- 16:25 - 16:30 Elhag M.

 [241] Quantification of Land Subsidence/Uplifting Using SBAS-InSAR in Arid Environments: Showcase Industrial Area of Dhahran, Saudi Arabia
- 16:30 - 17:00 **Panel Discussion**
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Saturday 6 September

Session 27 | Water and Wastewater Reuse

Room Aegle B

Chairs: **Verlicchi P., Roccaro P.**

09:00 - 09:15 **Keynote speech** Antoniou M., Nikoletta T., Chatziathanasiou E., Hadjicosti A., Yan Y., Fotidis I., Neofytou G., Chrysargyris A., Tzortzakis N., Konkel R., Mazur Marzec H.

[156] CYANOTECH Project: Sustainable management of toxic cyanobacteria in surface waters

09:15 - 09:30 **Keynote speech** Choi J., Mun J., Park H., Mamede N., Kim J., Corpuz M., Naddeo V., Choo K.

[224] Electroactive nanowire membranes for enhanced membrane fouling control and phosphorus removal in membrane bioreactors

09:30 - 09:40 Vullo S., Bonanno G., Vagliasindi F., Roccaro P.

[183] Development of a multi-factorial model to assess the sustainability of irrigation wastewater reuse: application to case studies in Sicily

09:40 - 09:50 Sarasidis V., Plakas K., Petsi P., Sioutopoulos D., Patsios S.

[260] Hollow fiber nanofiltration for water and solute recovery from industrial effluents

09:50 - 10:00 Merlet G., Guarda D., Garrido M., Romero J., Quijada-Maldonado E.

[352] Development of asymmetric membranes modified with ionic liquids for the recovery of aromas and fragrances from model agricultural residues to be used in pervaporation processes

10:00 - 10:10 Kallikazarou N., Yan Y., Nisiforou O., Shang Q., Fu D., Fotidis I., Antoniou M.

[418] Holistic Assessment of struvite production from real wastewater: Bridging laboratory research and market implementation

10:10 - 10:20 Umiejewska K., Malarski M., Misztal-Kruk K., Żubrowska-Sudoł M.

[84] Rainwater quality and reuse for small subcatchment - case study

10:20 - 10:30 **Questions and discussion**

Session 28 | Energy technologies and renewable energy sources

Room Panacea

Chairs: **Ramos A., Vakalis S.**

09:00 - 09:10 Dutournie P., Sculler E., Guicheney G.

[23] Thermochemical Heat Storage: heat and mass transfer modelling in the reactor

- 09:10 - 09:20 Panagiotakis I., Astara Z., Shala B., Gjinolli P., Alexopoulos I., Bejraktari E., Elshani A.
[422] Using the EU Environmental Permitting Framework to Promote the Energy Transition in the Western Balkans – The Case of Kosovo
- 09:20 - 09:30 Liobikiene G.
[174] Whether the electricity consumption and related behaviour influence the choice of green electricity considering the context of military conflict in Ukraine and environmental concern
- 09:30 - 09:40 Pelda J.
[197] sim4dhs - Algorithm for the thermohydraulic simulation of district heating systems: Identification of optimal locations for additional heat sources
- 09:40 - 09:50 Pajdak A., Gajda A., Jodlowski P., Kudasik M., Koziat K., Aniol Ł., Kurowski G., Hyjek K.
[286] Metal organic frameworks MOF (Cu, Co, Ni) integrated with a heat exchanger as low-energy adsorption systems
- 09:50 - 10:00 Kudasik M., Koziat K.
[289] CO₂/CH₄ exchange studies on shales to assess the potential for CO₂-Enhanced Shale Gas Recovery
- 10:00 - 10:05 Porzig M., Schulte S., Clemens W., Wern B., Ichwan M., Widodo M.
[261] EnaTex - Energy Efficiency in Textile Production in Indonesia
- 10:05 - 10:10 Corpus R., Bayani M., Galang J.
[11] Time Series analysis for renewable energy forecasting in the Philippines: Enhancing the reliability and efficiency of intermittent energy sources
- 10:10 - 10:15 Kondili E., Kaldellis J.
[254] Land: A critical resource in the energy transition. Perspectives and limitations.
- 10:15 - 10:30 **Questions and discussion**

Session 29 | Agroforestry, Forest and Agricultural Sustainability

Room Aegle A

Chairs: **Pantera A., Mosquera Losada M.R.**

- 09:00 - 09:10 El Ouardighi F., Gnecco G., Khmel'nitsky E., Sanguinetti M.
[318] Equilibrium strategies for forest restoration via an approach based on dynamic games
- 09:10 - 09:20 Vázquez-Miramontes D., Santiago-Freijanes J., Ferreira-Domínguez N., Rigueiro-Rodríguez A., Mosquera-Losada M.
[95] COMPAS: Pyric herbivory and precision livestock farming as a tool for landscape management

09:20 - 09:30 Vázquez-Miramontes D., Santiago-Freijanes J., Ferreiro-Domínguez N., Rigueiro-Rodríguez A., Mosquera-Losada M.

[97] Silvopastoralism as a tool for enhancing forest resilience: LIFE SILFORE demonstrations in Galicia

09:30 - 09:40 Papadopoulos A., Pantera A., Palaiologou P., Zografakis S.

[293] History of Forest fires and resin tapping as a tool in the management of the Varibobi forest

09:40 - 09:50 Mosquera-Losada M., Rodríguez-Rigueiro F., Couso-Viana A., Cavoški I., Ferrari A., Rotllan-Puig X., Soto-Embodas I., Pantera A., Saia S., Tataridas A., Freitas H., Hosseini A., Zander P., Fountas S., Seremetis I., Rodríguez-Aubo N., Ferreiro-Domínguez N.

[99] SUS-SOIL: Revitalizing Subsoil Health for Sustainable Agriculture and Ecosystem Resilience in the EU

09:50 - 10:00 Couso-Viana A., Rodríguez-Rigueiro F., Ferreiro-Domínguez N., Hosseini A., Valiño E., Fournarakos A., Fountas S., Pantera A., Papadopoulos A., Casey J., Zander P., Ciolfi M., Paris P., Aldrey-Vázquez J., Taboada-Iglesias M., Rigueiro-Rodríguez A., Fernández-Lorenzo J., González-Hernández M., Romero-Franco R., Mosquera-Losada M.

[78] AF4EU Buzz: Unveiling Beekeeping Value Chain and Sustainable Agroforestry Practices in the EU

10:00 - 10:10 Mosquera-Losada M., Couso-Viana A., Rodríguez-Rigueiro F., Vlontzos G., Avila J., Soto-Embodas I., Klefodimos G., Hosseini A., Zander P., Fountas S., Rodríguez-Aubo N., Duan Z., Xinxin Z., Guo L., Min L., Ferreiro-Domínguez N.

[81] Fostering Rural Innovation and Sustainability with GREENCOOP

10:10 - 10:20 Couso-Viana A., Ferreiro-Domínguez N., Santiago-Freijanes J., Zarina D., Girardi J., Dragičević V., Simic M., Brankov M., Sanna F., Sulas L., Travlos I., Antonopoulos N., Osuna M., Tataridas A., Freitas H., Mosquera-Losada M.

[93] GOOD for Weeds: Building an Agroecological Weed Management Network

10:20 - 10:30 Rodríguez-Rigueiro F., Ferreiro-Domínguez N., Santiago-Freijanes J., Rigueiro-Rodríguez A., Couso-Viana A., Vázquez-Miramontes D., Mosquera-Losada M.

[94] Unlocking the Potential of Operational Groups in Sustainable Weed Management: The Oper8 Project

Session 30 | Recycling of materials to new products

Room Acesso

Chair: **Papadopoulou K., Velis C.**

09:00 - 09:10 Elsebaei M., Mavroulidou M., Micheal A., Centeno M., Shamass R., Rispoli O.

[149] Use of waste dealuminated metakaolin in alkali-activated cement mixes

09:10 - 09:20	Sanna A., Armas C., Serici M., Artizzu F., Marchiò L., Serpe A. [86] Towards a sustainable future: Circular strategies for critical raw materials recovery from end-of-life magnets
09:20 - 09:30	Dagiliūtė R., Žaltauskaitė J., Sujetovienė G. [127] From waste to treasure: boosting upcycling of critical raw materials from hard disk drives
09:30 - 09:40	Sirot R., Diaz L., Baccay M. [144] Determination of highly-circular upcycled plastic products in the Philippines through product circularity assessment
09:40 - 09:50	Roccaro P., Vagliasindi F. [245] Volcanic ash recovery and valorization
09:50 - 10:00	Alexopoulos N., Vasileiou E., Lazaridou I., Metaxa Z., Prokopiou V., Filippidis A., Zeimpekis V. [354] Environmental and economic assessment of the reuse of the expanded polystyrene (EPS) waste as an aggregate substitute in cement mortar
10:00 - 10:10	Mavroulidou M., Gunn M., Joshi S., Sanam I., Murad M., Garelick J. [150] Feasibility of peat soil stabilisation with solid waste material inclusions and biocementation treatments
10:10 - 10:20	Da Silva C., Batista S., Fonseca P., Gomes A. [456] Designing for disassembly and reuse: A modular repair model proposed in the manual of good practices for the production and recycling of waste from electrical and electronic equipment
10:20 - 10:30	Questions and discussion

Session 31 | Plenary session

Room Panacea

10:30 - 11:00	Lyberatos G., Vlysidis A., Kanellos G., Tremouli A., Pavlopoulos C., Papadopoulou K., Fragkos O. [476] Biotechnological upgrading of biogas using green hydrogen as a reducing agent
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Session 32 | Water treatment

Room Aegle B

Chairs: Albanis T., Konstantinou I.

11:30 - 11:40	Saporsantos N., Dela Cruz I., Perez J. [10] Kinetics and Isotherm Studies of Methyl Orange Adsorption using Metal Organic Framework-based Composite Beads Functionalized with Polyethyleneimine
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- 11:40 - 11:50 Roccaro P., Marino L.
- [246] Development of fluorescence sensors for DBPs control in drinking water**
- 11:50 - 12:00 Zhang H., Zalaria J., Georgi A.
- [355] The Smart Hydrogels for the Controllable Adsorption and Desorption of PFAS**
- 12:00 - 12:10 Meropoulis S., Aggelopoulos C.
- [360] Optimizing plasma bubbles at pilot scale for organic pollutant degradation in water**
- 12:10 - 12:20 Pacala A., Neidoni D., Negrea S., Tenea A., Dinu C., Stefanescu M.
- [389] Performance of preoxidation and coagulation in arsenic removal from groundwater for human consumption in a small rural community in Western Romania**
- 12:20 - 12:30 Baccini L., Vagliasindi F., Korshin G., Roccaro P.
- [404] Exploring the applicability of differential absorbance to simultaneously quantify and control microbial inactivation and DBPs formation**
- 12:30 - 12:35 Pereira A., Gomes I., Simões M.
- [19] The role of methylparaben as an environmental contaminant in enhancing the pathogenicity of drinking water bacteria**
- 12:35-12:40 Çelebi H., Bahadır T., Koç Bilican B., Şimşek I., Tulun T., Bilican I.
- [108] Adsorption of toxic metals and dyestuff from wastewater using eggshell powders as adsorbents**
- 12:40 - 13:00 **Questions and discussion**

Session 33 | Circular economy in agriculture and food systems (1)

Room Panacea

Chairs: **Skiadas I., Samaras P.**

- 11:30 - 11:40 Pedullà A., Ferreri M., Pangallo D., Calabrò P.
- [33] Sustainable production of Omega-3-rich fish oil from Tuna by-products using green extraction process**
- 11:40 - 11:50 Arhin S., Esposito G., Cesaro A.
- [203] Fish waste valorization route: production of biohydrogen and volatile fatty acids under different process conditions**
- 11:50 - 12:00 Marra S., Silvestri B., Cesaro A., Matassa S., Luciani G., Virginia V., Maraviglia C.
- [211] Electrospun microbial protein and cellulose acetate nanocomposite fibers for heavy metals-contaminated water remediation**

- 12:00 - 12:10 Savva C., Michailidou A., Mertzanakis C., Vlachokostas C., Toufexis C., Koumpakis D., Koidis C., Kalaitzidis A., Makavou K., Aidonis D., Achillas C.
- [365] A circular approach to wheat residue management: Lab-scale production of biofuels**
- 12:10 - 12:20 Economou F., Voukkali I., Phinikettou V., Zorpas A.
- [417] Assessing methodologies for measuring food loss in tomato cultivation: A field study in Cyprus**
- 12:20 - 12:30 Christodoulou M., Vasiliades M., Tsiampartas A., Stylianou M., Agapiou A.
- [71] Optimizing biochar from palm tree waste for VOC mitigation in cattle farms**
- 12:30 - 12:40 Pedullà A., Calabrò P.
- [465] Impact of carbon-based materials on the anaerobic digestion of citrus processing by-product**
- 12:40 - 12:50 Paraschou M., Sergaki P., Kalogeras N., Nastis S., Charatsari C., Michailidis A., Mattas K.
- [379] Sustainability and accountability in agricultural cooperatives: The case of ZAGORIN through the GRI Lens**

Session 34 | Environmental Impact of Maritime Transport – NAVGreen

Room Aegle A

Chairs: **Kotrikla A., Polydoropoulou A.**

- 11:30 - 11:40 Bautista-Chamizo E., Cabrera-Bayarri M., Nebot E., Moreno-Andrés J.
- [445] Study of the ecotoxicological effects of metals from scrubber washwaters on aquatic biota**
- 11:40 - 11:50 Klontza E., Lekkas D., Zervakis V., Polydoropoulou A.
- [453] Monitoring ship-generated waste in Greek ports using ECOMARPOL platform**
- 11:50 - 12:00 Kolovoyiannis V., Mazioti A., Potiris M., Mamoutos I., Krasakopoulou E., Tragou E., Zervakis V., Majamäki, Hänninen R., Sofiev M., Fridell E., Kukkonen J., Jalkanen J., Poupkou A., Liora N., Skylaki E., Parinos C., Gogou A., Mihalopoulos N., Zerefos C.
- [458] Maritime transport impact on pollution in Saronikos Gulf: modelling, insight and perspectives from two research projects.**
- 12:00 - 12:10 Kotrikla A., Remoundos G., Lekakou M., Polydoropoulou A., Papaioannou G., Katsounis G., Fameli K., Assimakopoulos V., Grivas G., Mihalopoulos N., Liora N., Poupkou A., Progiou A., Zerefos C., Grigoriadis A., Tsegas G., Fragkou E., Ntziachristos L.
- [250] Ship electrification as a pathway to decarbonize shipping: The case of Perama-Salamina line**

- 12:10 - 12:20 Carnimeo D., Stamatopoulou E., Mohr A., Gagić R., Nikolic D., Metalla O., Stefanucci A., Ventikos N.
- [361] Assessing knowledge gaps about shipping emissions: Designing educational programs for sustainable maritime logistics for future professionals in Albania & Montenegro**
- 12:20 - 12:30 Katsos P., Stouraiti A., Ventikos N., Themelis N., Apostolakos G., Stamatopoulou E., Toliopoulos T., Skalidi I., Gounaris A.
- [472] From Weather to Waypoints: Predicting Fuel Consumption and Optimizing Maritime Routes with ML and Graph Search**
- 12:30 - 12:40 Polydoropoulou A., Papaioannou G.
- [474] Towards market-oriented measures for reducing the emissions of maritime passenger transport: Assessing potential business models**
- 12:40 - 13:00 **Questions and discussion**

Session 35 | Reuse and resources recovery

Room Acesso

Chairs: **Gavala H., Oliva G.**

- 11:30 - 11:40 Ciotola E., Esposito G., Pirozzi F., Cesaro A.
- [180] Ultrasound treatment of digested sludge: A dual approach for energy recovery and emerging contaminant reduction**
- 11:40 - 11:50 Bellopede R., Mori de Oliveira C., Giardino M., Marini P.
- [107] Optimization of copper recovery from printed circuit boards**
- 11:50 - 12:00 Bruno M., Francia C., Baldo C., Fiore S.
- [134] Lithium recovery from lithium-ion batteries: technical and environmental analysis**
- 12:00 - 12:10 Maia C., Loureiro J., Soares O., Pereira M., Pires J.
- [110] A magnetic approach to sustainable *Chlorella vulgaris* harvesting: Methods and applications**
- 12:10 - 12:20 Xu C., Alao P., Adamopoulos S.
- [296] Properties of thermo-mechanically and steam-treated recycled wood fibers from post-consumer waste and processing residues**
- 12:20 - 12:30 Lithourgidis A., Tzenos C., Tsitsimpikou M., Pitsikoglou D., Fotidis I., Kotsopoulos T.
- [366] Enhancing industrial symbiosis in the value chain of anaerobic digestion**

12:30 - 12:40	Butvilas T., Kovaitė K., Šūmakaris P. [380] Integrating citizens' engagement model into the circular economy: A multidimensional approach to the recycled construction materials usage
12:40 - 12:50	Ramalingam K., Fillos J., Halim D., Tam T., Hoffman J. [223] Valorization of organic biosolids at New York City Water Resource Recovery Facilities
12:50 - 13:00	Questions and discussion

Session 36 | Networking lunch

13:00 - 15:30

15.00-15.30	Falaras P. [479] Nanotechnology processes for environmental protection and solar energy conversion
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Session 37 | Micropollutant Removal and Circular Water Reuse: Challenges and Opportunities under the Revised Urban Wastewater Treatment Directive

Room Aegle B

Chairs: **Belgiorno V., Lekkas T.**

15:30 - 15:45	Keynote speech <u>Verlicchi P.</u> , Grillini V., Galletti A. [17] Quaternary treatments in the upgrading of wastewater treatment plants: micropollutant removal and operation reliability
15:45 - 15:55	Roccaro P., Gagliano E., Falciglia P., Zaker Y., Karanfil T. [393] Microwave regeneration of granular activated carbon can destroy PFAS
15:55 - 16:05	Subirats J., Brown L., Marizzi A. [112] Metagenomic analysis of urban wastewater resistome and mobilome: Implications for reclaimed water safety in agriculture.
16:05 - 16:15	Ubiña L., Guia R., Aquino C., Somera L., Balela M., Beltran A., Cornista J., Bautista-Patacsil L. [395] Adsorption of Ciprofloxacin by sugarcane bagasse activated biochar in aqueous solution
16:15 - 16:25	Marino L., Gagliano E., Santoro D., Roccaro P. [390] Removal of organic micropollutants by quaternary treatments controlled by optical sensors
16:25 - 16:35	Corpuz M., Gianattasio A., Buonerba A., Sannino F., Vigliotta G., Choo K., Belgiorno V., Naddeo V. [439] Sustainable removal of contaminants of emerging concern from wastewater by the living membrane bioreactor: effect of the co-occurrence of microplastics and antibiotics

- 16:35 - 16:40 Pino-Soto L.
- [164] Revalorized reverse osmosis membranes: A sustainable solution for gray water treatment**
- 16:40 - 16:45 Mariam O., Shadi H.
- [264] Performance of Electrified MXene Membranes in Real Wastewater Applications**
- 16:45 - 16:55 Lytras E.
- [481] Ongoing Developments in the Implementation of the New Directive: How the European policy is reshaping water and sewage companies**
- 16:55 - 17:30 **Panel Discussion**

Session 38 | Circular economy in agriculture and food systems (2)

Room Panacea

Chairs: **Skiadas I., Samaras P.**

- 15:30 - 15:40 Moldes A., Lvova K., González-Fernández N., López-Prieto A., Vecino X., Pérez-Cid B., Cruz J.
- [60] Evaluation of *Aneurinibacillus aneurinilyticus* isolated from corn steep liquor as source of Biosurfactants, Gramicidin S and Polyhydroxyalkanoates**
- 15:40 - 15:50 Ferreiro-Domínguez N., Álvarez-López V., Lado-Liñares M., Santiago-Freijanes J., Mosquera-Losada M.
- [62] Sustainable crop management through the use of biochar and manure based biofertilizers**
- 15:50 - 16:00 Satya S., Kaushik G.
- [111] Exploring the role of soil microbes in integrated nutrient solubilization and pesticide biodegradation for advancing sustainable agriculture**
- 16:00 - 16:10 Mnatsakanyan M., Hovhannisyan S.
- [173] Utilization of *Komagataeibacter xylinus* for bacterial cellulose production from food waste: A sustainable approach for reducing agricultural pesticide use**
- 16:10 - 16:20 Tlustos P., Lestan D., Mercl F., Taisheva A.
- [232] Combined sludge treatment can improve their field application.**
- 16:20 - 16:30 Xu F., Lyons Ceron A., Neshumajev D., Konist A.
- [405] Bio-oil production from biomass pyrolysis via a hybrid mathematical and machine learning approach**
- 16:30 - 17:00 **Panel Discussion**

Session 39 | Transportation and the environment

Room Aegle A

Chairs: **Achillas C., Polydoropoulou A.**

15:30 - 15:40 Ahmed S., Sospiro P., Vangi D., Gulino M., Laschi M.

[49] Navigating urban spaces: The enablers and barriers of micromobility

15:40 - 15:50 Ahmed S., Sospiro P., Gulino M., Laschi M., Vangi D.

[51] Advancing Electric Vehicle Technology: Evaluating Supercapacitors Versus Batteries

15:50 - 16:00 Del Rosario B., Ballesteros F.

[146] Development of a Standardized Greenhouse Gas Quantification Template for the Philippine aviation industry

16:00 - 16:10 Corpus R., Bayani M.

[7] Development and validation of a representative driving cycle for Metro Manila: A data-driven approach to assess vehicle emissions and inform emission reduction strategies

16:10 - 16:20 Corpus R., Bayani M., Israel A.

[13] Optimization of Drive Cycle Generation for Green Route Planning in the Philippines: A data-driven approach to mitigating urban vehicle emissions

16:20 - 16:30 **Questions and discussion**

Session 40 | Heavy metals in the environment

Room Acceso

Chairs: **Lydakis-Simantiris N., Panagiotakis I.**

15:30 - 15:40 Almalvez J., Chang H., Zhao Y., Wu L., Ballesteros F., Wu S.

[80] Effect of different metals on the chromate reductase activity of *Magnetospirillum gryphiswaldense* MSR-1

15:40 - 15:50 Almalvez J., Chang H., Zhao Y., Wu L., Ballesteros F., Wu S.

[91] Salinity on growth and chromium reduction abilities of *Magnetospirillum gryphiswaldense* MSR-1

15:50 - 16:00 Lanzerstorfer C.

[120] Concentration ratio of copper to antimony in dust - an indicator for brake dust?

16:00 - 16:10 Pamintuan Jr. G., Ballesteros F.

[124] Mining-Influenced Waters at the Carmen Copper Mine in Toledo City, Cebu Province, Philippines

16:10 - 16:20 Pamintuan Jr. G., Urquico J., Mendoza A., David J., Loayon R., Saperá-Blanco R.

[125] A review of the state of mining-influenced waters in an Old Philippine Copper-Gold mine after ten years of mining

16:20 - 16:30 Gkaragkouni A., Dimas X., Christodoulou D., Sergiou S., Geraga M., Papatheodorou G.

[320] A 50-Year Meta-analysis review of metal pollution in sediments of the N. Saronikos Gulf, Salamina Straits.

16:30 - 17:00 **Questions and discussion**

Session 41 | Closing session – Awards ceremony

Room Panacea

POSTER PRESENTATIONS

Thursday 4 September 2025

		Topic
	Widolff M., Meyer Y., Dutournie P.	
A1	[70] Indoor air pollution: innovative solution for active purification treatments	Air pollution
	Giannakaki E., Koutounidis I.	
A2	[130] Optical and microphysical properties of Saharan and Saudi Arabian desert based on AERONET data products	Air pollution
	Koutounidis I., Giannakaki E.	
A3	[131] Aerosol Characterization Based on Graphical Method of Gobbi Diagrams	Air pollution
	Maggos T., Vastianos G., Panagopoulos P., Pahoulis M., Sakellaris I., Kyriazanos D., Dikaia S.	
A4	[140] Development and field performance evaluation of low-cost air quality sensor	Air pollution
	Saliba M., Micallef A.	
A5	[271] Long-term Measurements of SO₂ Concentrations Within the Atmospheric Column on Gozo (Maltese Islands)	Air pollution
	Šilha D.	
A6	[270] Biofilm formation and antibiotic resistance in <i>Arcobacter butzleri</i> strains isolated from environmental sources	Antibiotic resistance
	Movalli P., Gkotsis G., Guy D., Oginah S., Fantke P., Barmentlo H., Bouma A., Wieringa J., Gravendeel B., Nikiforos A., Jaroslav S., Thomaidis N.	
A7	[166] A sampling strategy and protocol for pan-European monitoring of chemicals across trophic levels (from soil to apex species) in terrestrial wildlife food chains	Biomonitoring

	Mumladze T., Guleishvili N., Gabidzashvili M., Bochoidze I.	
A8	[412] Grape pomace as a sustainable fining agent in winemaking: A review on valorization for circular economy	Biowaste
	Soriano R., De Yro P.	
A9	[162] Validation of an innovative stream assessment protocol for application in the Global South	Citizen Science
	Mavrommatis T., Tolidis T.	
A10	[386] Assessing the reliability of four air temperature interpolation functions in estimating chill accumulation for deciduous fruit trees	Climate change
	Mavrommatis T., Papadopoulou A.	
A11	[387] Temporal Evolution of Seasonal Crop-Specific Climatic Indices in Greece, Based on ERA- and CMIP6- derived Data	Climate change
	Pavesi R.	
A12	[163] Patenting Trends in Agricultural Climate Innovation: A Global Analysis with a Focus on China	Climate change adaptation and resilience
	Jana Pinninghoff P., Araneda A., Fagel N., Álvarez D., Roberto U., Contreras S.	
A13	[122] Insights into climate change through $\delta^{2}\text{H}$ variability in leaf waxes from northern Patagonian lakes over the last millennium	Climate change impacts, vulnerability and risks
	Al-Areeq A.	
A14	[348] Predicting Future Surface Runoff Patterns Under Climate Change Using the GSSHA Model	Climate change impacts, vulnerability and risks
	Kontogianni P., Lougkovois R., Parinos C., Gotsis G., Nika M., Hatzianestis I., Pavlidou A., Abualnaya Y., Thomaidis N.	
A15	[448] Investigating the chemical impact of human-related activities on the Red Sea marine environment utilizing High Resolution Mass Spectrometry	Emerging pollutants

	Lougkovois R., Parinos C., Gkotsis G., Nika M., Hatzianestis I., Pavlidou A., Thomaidis N.	
A16	[178] Study of the occurrence, sources and distribution trends of emerging contaminants in the Saronikos Gulf and Elefsis Gulf, Greece, utilizing ion mobility tandem high-resolution mass spectrometry	Emerging pollutants
	Chalkiadaki O., Paraskevopoulou V., Kanellopoulos C.	
A17	[188] Mercury in reference materials (mineral ores and soils): A comparative study of Microwave-Acid Digestion and Analytical Techniques	Emerging pollutants
	Jeon J., Jang H.	
A18	[428] Comprehensive Target, Suspect, and Non-Target Screening Using LC-HRMS of Pharmaceuticals and Their Transformation Products in Biological Treatment Systems	Emerging pollutants
	Medina-Peris A., Torreblanca A., Andreu V., Campo J.	
A19	[305] Tebuconazole bioconcentration in European Eels (Anguilla Anguilla): the role of pollutant cocktails	Environmental exposures and human health
	Joshua J.	
A20	[421] Impacts of Ambient Atmospheric Pollution and their Challenges to Survival	Environmental health and well-being
	Ispiryan A., Butu A., Jariene E.	
A21	[45] Fermentation-Driven Enhancement of Berry Pomace: Proximate Composition and Functional Properties Evaluation	Food waste and food loss
	Economou F., Voukkali I., Phinikettou V., Zorpas A.	
A22	[416] Innovative Technologies and their Role in Reducing Pre-Consumption Food Loss	Food waste and food loss
	Zoli M., Giocapelli F., Challita C., Bacenetti J.	
A23	[29] Life Cycle Assessment of grape production. Potential environmental benefits of an alternative solution for fungal diseases control	Life cycle analysis (LCA)
	Voukkali I., Gioti E., Economou F., Stylianou M., Zorpas A.	
A24	[169] Environmental Impact Assessment of Halloumi Cheese Production: A Life Cycle Approach	Life cycle analysis (LCA)

	Manakas P., Stamatis M., Theodosi Palimeri D., Karaoglanoglou L., Vlysidis A.	
A25	[301] Sustainability Assessment in an Industrial Symbiosis Case Study: Olive Mills and Olive Mill Waste Biorefineries	Life cycle analysis (LCA)
A26	Keykha H., Mavroulidou M., Bush J., Romiani H. [449] Remediation of Lead-Contaminated Sand through Cerussite Formation and its Effects on Sand Shear Strength Properties	Pollution control and contaminated sites
A27	Vryonides K., Voukkali I., Stylianou M., Liscio M., Sospiro P., Zorpas A. [337] Textile recovery opportunities from the Cyprus military sector	Solid waste management
A28	Vreuls C., Quinting B., Gennaux C. [28] Development of a new process for production of a bacterial consortium as efficient, un toxic and biodegradable flocculant for sludges in wastewater treatment plants	Solid waste management
A29	Acuña Alonso C., Davila I., Barba-Barragáns D., Álvarez X. [424] Multifunctional Forest Management and Carbon Mapping in Communal Lands: A Sentinel-2 and InVEST-Based Assessment in NW Spain	Spatial environmental planning
A30	García-Ontiyuelo M., Barba-Barragáns D., Acuña-Alonso C., Leal Pacheco F., Sanches Fernandes L., Álvarez X. [469] Multifactor Simulation and Evaluation of Future Land-Use in the Atlanticas Islands (NW Spain) with a Temporal–Spatial Fusion Network (TSFN)	Spatial environmental planning
A31	Dimouli I., Koumparou D., Golfinopoulos S., Nivolianitou Z. [253] Seeds of Change: School Gardens on the Road to Environmental Justice	Sustainability & the SDGs
A32	Gonzalez T., Venegas M., Lopez D., Alvarez D. [115] Effect of a microbial fuel cell on methane emission from eutrophicated urban lagoons sediment	Sustainable water resources management with nature-based solutions
A33	Alarifi S., Abdelrahman K., Al-Kahtany K., Almakrami A. [429] Mapping of Shallow Groundwater Resources in Al-Hofuf, Eastern Saudi Arabia, Using Vertical Electrical Sounding for Sustainable Water Management	Sustainable water resources management with nature-based solutions

A34	Brickhill G., Sheridan C. [167] Exploring the Efficacy of Slow Sand Filtration for Sustainable Water Purification	Sustainable water resources management with nature-based solutions
A35	Aidonis D., Achillas C., Tsolakis N., Folinas D., Kotsoglou A., Tserga E. [142] Smart container tracking: A sustainable path for modern port management	Transportation and the environment
A36	Nivolianitou Z. [170] Environmental protection: do alternative cryogenic fuels for Marine Transportation offer a local solution?	Transportation and the environment
A37	Gonzales A., Gonzales C. [399] Typhoon-associated capacity preparedness of selected barangays of LGU Polangui, Albay	Urban environment and health
A38	Dagiliute R., Žiūkaitė V. [229] Waste to energy: waste incinerated and CO2 behind in the case of WTE plant in Lithuania	Waste-to-energy
A39	Daskaloudis I., Lekkas D. [357] Impact of biochar amendment on pilot-scale anaerobic digestion of agro-industrial waste with digestate recirculation	Waste-to-energy
A40	Oner T., Boyacioglu H. [325] Integrating water pinch analysis and advanced treatment for circular water management in a chemical facility in Türkiye	Water and wastewater treatment and reuse
A41	Papadopoulou K., Pavlopoulos C., Markouli P., Anton D., Lyberatos G. [435] CuO nanoparticles as modifiers for membranes: An analysis of performance for digestate treatment	Water and wastewater treatment and reuse
A42	Moyseos M., Demosthenous P., Seidel M. [447] A Novel Automated Water Pretreatment System for Microbial Preconcentration and DNA Extraction Using Monolithic Adsorption Filtration (MAF)	Water and wastewater treatment and reuse

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	Antoniou M., Wiegand., Visser P., Edwards C., Dafku Z., Gkelis S., Tsiarta N., Zervou S., Triantis T.	
A43	[425] CYANOACTION – COST Action CA23160, Effective Lake management: reducing cyanobacteria by actions in the catchment	Water policy, management and society
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	Żubrowska-Sudoł M., Knap-Bałdyga A., Czajkowska J.	
A44	[40] Wastewater Reclamation – opportunities and challenges	Water and wastewater reuse
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Friday 5 September 2025

		Topic
	Pasciucco E., Pasciucco F., Iannelli R., Pecorini I., Panico A.	
B1	[430] Enhancing electro-Fenton-based tertiary treatment for tannery effluent via Response Surface Methodology	Advanced Oxidation Processes
	Žgajnar Gotvajn A., Derco J., Čehovin M.	
B2	[9] Application of Ozonation-Based Processes to Reduce Environmental Impact of Waste Antibiotics	Advanced Oxidation Processes
	Jeon S., Choi C., Choi A., Lee H., Changseok H.	
B3	[89] Catalytic activation of peracetic acid to decompose micropollutants in water	Advanced Oxidation Processes
	Çokay E., Dölgen D., Alpaslan N.	
B4	[113] Table Olive Processing Wastewater Treatment with Homogeneous Fenton Process	Advanced Oxidation Processes
	Tsiboulis D., Efthymiou C., Boti V., Konstantinou I., Albanis T.	
B5	[240] Photochemical fate and advanced oxidation of Pyrimethanil in waters and wastewater	Advanced Oxidation Processes
	Guo P., Sühnholtz S., Mackenzie K.	
B6	[370] New insight on homolytic peroxodisulfate activation by iron sulfides and $\text{Fe}^{\text{IV}}=\text{O}^{2+}$ formation	Advanced Oxidation Processes
	Bautista-Chamizo E., Bermudez-García L., Cavilla-Molina M., Nebot E., Moreno-Andrés J.	
B7	[446] Treating PAHs in scrubber washwater: an investigation into Fenton-like Advanced Oxidation	Advanced Oxidation Processes
	Ansari M., Onaizi S.	
B8	[350] Turning Offshore CO₂ Emissions into Valuable Chemicals Using g-C₃N₄-based Catalysts	Chemical recycling uptake
	Cruz J., Russo-Martínez N., Vecino X., Moldes A.	
B9	[66] Comparison between different agri-food residual streams as direct source of biosurfactants	Circular economy and industrial symbiosis
	Zorpas A., Olesea P., Lekkas D., Klontza E., Stylianou M., Voukkali I.	
B10	[420] The Cyprus Case study in ECO4ALL COST ACTION (CA22124) regarding Fashion Waste	Circular Economy and Bioeconomy

	Papadopoulou K., Antonopoulou G., Ntaikou I., Didachos M., Syriopoulos G., Lyberatos G.	
B11	[434] Industrial Urban Symbiosis: A Solution to Transform Waste into Resources	Circular Economy and Bioeconomy
B12	Pavesi R., Bacenetti J., Orsi L., Cianciabella M., Versari G., Aiuto B., Biasato I. [441] Towards a circular aquaculture: Assessing sustainability and consumer acceptance of insect-based feed for trout farming	Circular economy in agriculture and food systems
B13	Ispiryan A., Butu A., Jariene E. [44] Circular Economy through Berry Pomace Valorization	Circular economy in agriculture and food systems
B14	Vasiliades M., Christodoulou M., Tsiampartas A., Omirou M., Agapiou A., Stylianou M. [74] Sustainable Manure Management: VOC Monitoring and Biochar Integration for Emission Mitigation	Circular economy in agriculture and food systems
B15	Orlandella I., Fiore S. [46] Value of Orange processing residues	Circular economy in agriculture and food systems
B16	Antonopoulou P., Diamantis I., Argyropoulos D., Papanikolaou S., Diamantopoulou P. [227] Biotransformation of olive mill wastewater and lignin by <i>Ganoderma adspersum</i>: mycelial growth, ligninolytic enzyme production and pollutant removal	Circular economy in agriculture and food systems
B17	Wern B., Vielhaber M. [459] Circular Saar - Circular design thinking in the German steel industry	Circular Economy in Manufacturing and Industrial Processes
B18	Depretre A., Fotsing I., Koutra S. [52] Optimizing the use of plastic materials from Walloon buildings for material and environmental innovation	Circular product design: design out waste
B19	Vasiliades M., Christodoulou M., Tsiampartas A., Stylianou M., Omirou M., Agapiou A. [73] Advancing biochar production from woody waste for odor mitigation and sustainability	ESG (Environmental, Social and Governance) and circular economy
B20	Baimanov D., Song Z., Wang L., Qingxi Y., Zhang Z. [247] Surface charges of polystyrene nanoplastics affect their distribution in mice	Health and plastics
B21	Christodoulou M., Stylianou M., Zorpas A. [291] Unveiling the presence of MNPs within the human body	Health and plastics

B22	Apostolidou S., Galinou-Mitsoudi S., Papadimitriou C. [419] Microplastics in sandy beaches of Thermaikos Gulf: quantification and spatial distribution	Macro- and microplastics pollution in coastal waters and rivers
B23	Methsara A., Ekanayake E., Jayakody S., Mahagamage M., MCGoran A., De Silva D. [433] Microplastic Contamination in Water and Sediment in Anawilundawa Mangrove Restoration Site, Sri Lanka	Macro- and microplastics pollution in coastal waters and rivers
B24	Papadopoulos Michalas O., Dantsi C., Varvakis I., Minas O., Toyranakos E., Bardanis E., Mourkogianni V., Vaden G., Apostolopoulos G., Tomaras X., Megalofonou P. [364] Microplastic ingestion in <i>Scomber colias</i> from Saronikos Gulf	Microplastics in the marine environment
B25	Kostoula A., Dantsi C., Botsou F., Sakellari A., Megalofonou P. [372] Monitoring plastic and Hg pollution impacts on two commercial species from the North Evoikos Gulf	Microplastics in the marine environment
B26	Manfra L., Rotini A., noventa s., Prato E., Albarano L., Amato A., Costantini M., Biandolino F., Zupo V., Libralato G. [385] Hazards of microplastics to the marine ecosystem: BioPlast4Safe project remarks	Microplastics in the marine environment
B27	Rotini A., Manfra L., Chiesa S., Pettini G., Scalici M., Libralato G. [391] Monitoring of (micro)plastics in <i>Posidonia oceanica</i> meadows and banquettes: state of the art and future research trends	Microplastics in the marine environment
B28	Sujetoviene G., Miškelytė D. [249] Effects of tire wear particles on lichen viability	Microplastics in water treatment: fate, toxicity assessment and removal technologies
B29	Legan M., Žgajnar Gotvajn A., Zupan K., Zupančič P., Sakulthaew C., Chocejaroenrat C. [319] The impact of ozonation on PET and PVC microplastics in model urban wastewater	Microplastics in water treatment: fate, toxicity assessment and removal technologies
B30	Phinikettou V., Economou F., Voukkali I., Zorpas A. [330] Regulatory and mitigation strategies to combat microplastic pollution in agricultural ecosystems	Plastics in agriculture and aquaculture
B31	Kyriakou E., Voukkali I., Stylianou M., Zorpas A., Loizia P. [338] End of life pesticide plastic containers management	Plastics in agriculture and aquaculture

	Koustoula A., Megalofonou P.	
B32	[308] Feeding habits and microplastic ingestion of Bogue in Mediterranean Sea	Plastics in the environment
	Duffield Healy M., Robinson L., Farnaud S.	
B33	[2] A novel synergistic bioleaching approach to phosphor powder recycling	Recycling of materials to new products
	Ribeiro H., Carvalho R., Martins T., Fontes L., Carreiro P., Costa e Silva F.	
B34	[196] Pulp mill sludge-based organomineral fertilizer: performance evaluation on the early growth of <i>Eucalyptus globulus</i>	Recycling of materials to new products
	Freitas D., Gominho J., Ribeiro H.	
B35	[219] Low-value production residues from the cork industry: potential raw materials for the growing-media industry?	Recycling of materials to new products
	Dolgen D., Alpaslan N.	
B36	[128] Implementation of rainwater harvesting systems in industries as part of the green transformation process: A Case Study of the Table Olive Industry	Reuse and resources recovery
	Ottosen L., Lima A., Li H.	
B37	[233] Co-extraction of phosphorous and rare earth elements from sewage sludge ash using electrodialysis	Reuse and resources recovery
	Pandey U.	
B38	[282] Evaluation of nutritional values and constraints towards income generating potential of Water Chestnut (<i>Trapa bispinosa</i>) in Ganges Basin, India	Sustainable production and management of biomass
	Stylianou M., Karamesouti M., Säumel I., Voukkali I., Zorpas A.	
B39	[381] Circular economy for biowaste exploitation of Famagusta-Larnaka district: The ecoFABULAnds project	Sustainable production and management of biomass
	Jongtae L., Haesung L., Taekyung B., Kyungeun H., Changseok H.	
B40	[90] A Comparative Study of ED and BPED technologies for ammonia recovery from wastewater.	Wastewater treatment
	Hansen E., Aquim P.M., Rodrigues M.A.S.	
B41	[294] Assessment of tannery-derived pollution in the Sinos River Basin, Brazil	Wastewater treatment

Giannakis I., Emmanouil C., Kungolos A.

**[423] Municipal biosolids in agriculture: A physicochemical and
ecotoxicological investigation**

B42

Wastewater
treatment

Saturday 6 September 2025

		Topic
C1	Zilia F., Orsi L., De Noni I. [25] Unleashing the Green Potential: Geographical indications and environmental technologies in European Regions	Agroforestry, Forest and Agricultural Sustainability
C2	Pavesi R. [151] Adapting to environmental change: A QCA approach to innovation and sustainability in European Forest-Based Industries	Agroforestry, Forest and Agricultural Sustainability
C3	Pástor M. [413] The historical background and current state of chestnut cultivation in the southern part of central Slovakia	Agroforestry, Forest and Agricultural Sustainability
C4	Sentas S., Stavrianakis G., Demesiotis P., Kizos T. [444] Beyond the Grove: Climate-Driven Dispersal of <i>Bactrocera oleae</i> into Adjacent Forest Habitats in Mediterranean Landscapes	Agroforestry, Forest and Agricultural Sustainability
C5	Sykalia D., Trantopoulos E., Tsoutsi C., Konstantinou I., Albanis T. [327] Green and simple analysis of brominated and organophosphate flame retardants in fish samples Using QuEChERS Extraction and GC-MS	Emerging pollutants
C6	Efthimiou C., Sykalia D., Tsoutsi C., Hela D., Konstantinou I. [328] Determination of Polybrominated diphenyl ethers (PBDEs) in Fish Feed by QuEChERS and GCxGC-TOF MS	Emerging pollutants
C7	Efthimiou C., Sykalia D., Tsoutsi C., Konstantinou I., Albanis T., Hela D. [368] Application of QuEChERS-GCxGC-TOF MS method for the determination of flame retardants in aquaculture fish samples.	Emerging pollutants
C8	Salerno J., Micallef A., Gauci A. [274] Estimation of Solar Irradiance for the Maltese Islands	Environmental data analysis and modelling
C9	Kortas G., Stylianou M., Voukkali I., Zorpas A. [339] A.I Tools in the framework of environmental impact assessments evaluation procedure	Environmental data analysis and modelling
C10	Skiba M. [475] The use of the BigML platform for the analysis of geological-mining parameters influencing the rockbursts hazard	Environmental data analysis and modelling

	Montvydienė D., Karosienė J., Butrimienė R., Kazlauskienė N., Matviienko N., Skrotskyi S., Jurgelėnė Ž.	
C11	[214] Evaluation of the effects of water from war-impacted regions of Ukraine on autotrophic test organisms	Environmental Pollution
	Karosienė J., Petrėnas G., Jurgelėnė Ž., Šemčuk S., Montvydienė D.	
C12	[226] Vulnerability of the pollution-tolerant diatom <i>Nitzschia palea</i> to metal pollution	Environmental Pollution
	Jurgelėnė Ž., Kazlauskienė N., Matviienko N., Skrotskyi S., Montvydienė D.	
C13	[467] Assessing the impact of war-affected water samples on early developmental stages of <i>Danio rerio</i>	Environmental Pollution
	Arambatzis N., Milios E., Radoglou K., Kitikidou K.	
C14	[117] Sustainable Management of Kryoneri Municipal Forest for 2023-2032: A comprehensive study on carbon stock changes and forestry mitigation potential	Forest ecosystems
	Andreottola F.	
C15	[367] Mapping What People Value: A Review of Societal Demand for Forest Ecosystem Services in Europe	Forest ecosystems
	Mandaresu M., Cappai G., Tamburini E.	
C16	[322] Microbial activity in mine tailing dump in South-West Sardinia (Italy)	Heavy metals in the environment
	Mandaresu M., Vitali F., Mocali S., Cappai G., Tamburini E.	
C17	[408] Complementary approaches to characterize rhizospheric microbial diversity of <i>Pistacia lentiscus</i> in a highly contaminated mine tailing dump	Heavy metals in the environment
	Lydakakis-Simantiris N., Panagou G., Stergiou E., Spyros A., Pergantis S.	
C18	[402] Nickel-induced multimetal uptake in two microalgal species	Heavy metals in the environment
	Ikiz A.	
C19	[168] Clean Energy Production in University Campuses: Economic Benefits of Solar Energy Production in Muğla Sitki Koçman University	Renewable energy sources
	Mirizadeh S., Ferrari P., Casazza A.	
C20	[406] Combination effect of light intensity and temperature on photoautotrophic growth and lipid production of <i>Chlorella vulgaris</i> and <i>Nannochloropsis oculata</i>	Renewable energy sources
	Theochari A., Bertsiou M., Papalexioiu E., Baltas E.	
C21	[432] A geospatial multi-criteria analysis for wind turbines and photovoltaic modules optimal siting on the island of Kos	Renewable energy sources

	Aizaz U., Al Yousef Z.	
C22	[351] Dry Reforming (CO₂) of Higher Hydrocarbons for Blue Hydrogen Production	Energy Technologies
	Sousa S., Dias J., Alves M., Pereira M., Pires J.	
C23	[323] UCI4SmartCity Project: Urban Cleanliness Index for Smart Cities	Smart cities
	Vítová M., Jílková V., Čížková M., Kvíderová J., Elster J., Frouz J.	
C24	[47] Can Microalgae Revitalize Phytotoxic Soils?	Soil and groundwater contamination and remediation
	Mitić J., Kojić I., Relić D., Popović A., Milićević T.	
C25	[311] Identification and Quantification of Polycyclic Aromatic Hydrocarbons in Soil from the Vinča Landfill (Serbia)	Soil and groundwater contamination and remediation
	Kyriakou E., Panagiotou C., Papanastasiou P., Voukkali I., Zorpas A., Stylianou M.	
C26	[377] Influence of Bamboo-Derived Biochar on Soil Hydraulic Conductivity and Chloride Transport: Experimental and Numerical Analysis	Soil and groundwater contamination and remediation
	Borowska W., Godzieba M., Ciesielski S., Żubrowska-Sudoł M.	
C27	[76] Balancing oxygen and microbial activity: The role of aeration in enhancing deammonification efficiency	Wastewater treatment
	Umiejewska K., Polański Ł., Pietraszek P.	
C28	[85] Preliminary Research on the Removal of Organic Compounds from Leather Tanning Wastewater	Wastewater treatment
	Harja M., Hanganu D., Favier L., Lutic D.	
C29	[103] Comparison of Ceftriaxone, Ofloxacin, and Metformin Adsorption onto Activated Carbon from Aqueous Solutions	Wastewater treatment
	Nutescu Duduman C., Hanganu D., Favier L., Apostolescu G., Harja M.	
C30	[104] Simple synthesis route of oxides mixt – CNF composites used as adsorbent for pharmaceutical pollutants removal	Wastewater treatment
	Milojković J., Lopičić Z., Šoštarić T., Antanasković A., Nikola V., Adamović V.	
C31	[192] SEM-EDX characterization of iron-modified plum stones biochar	Wastewater treatment
	Mendes V., Faria A., Miguel C., Esteves B.	
C32	[346] Membrane-Based treatment of hydrothermal carbonization effluent from municipal biowaste	Wastewater treatment

	Mashhadi N.	
C33	[349] Criteria for assessing anthropogenic transformation in a watershed (Case Study: Lalezar Watershed, Kerman, Iran)	Wastewater treatment
	Palikrousis T., Manolis C., Kalamaras S., Samaras P.	
C34	[396] Microalgae cultivation in ammonia rich digestate subjected to different pretreatment stages	Wastewater treatment
	Stamatis H., Alatzoglou C., Michaela P., Stamatia S., Theodosis G., Angeliki P., Mamas P.	
C35	[471] Nanocomposite polymeric membranes with bio-graphene and enzymes for the sustainable mitigation of biofouling	Wastewater treatment
	Gheibi M., Palušák M., Silvestri D., Černík M., Wacławek S.	
C36	[88] Adsorption of Cd²⁺ using brick-sludge composite: A circular economy approach	Water treatment
	López D., Barría C.	
C37	[136] Evaluation of the efficiency of sub-surface wetlands with vertical and horizontal flow for the treatment of eutrophicated lagoon water and urban runoff	Water treatment
	Silva D., Hansen E., Rodrigues M., Aquim P.	
C38	[288] Prototype for removal of residual chlorine, hardness and manganese from drinking water	Water treatment

PERSONAL NOTES

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