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MUNICIPALITY
OF KOS

KOS2026

24-28 JUNE

KOS, GREECE

kos2026.uest.gr



13th International Conference on Sustainable Solid Waste Management

24-28 JUNE



13th International Conference on Sustainable Solid Waste Management

WELCOME

On behalf of the Scientific and Organising Committees, I am pleased to welcome you to the **KOS 13th International Conference on Sustainable Solid Waste Management**.

As in the cases of the previous international conferences, the KOS 2026 13th International Conference aims to make an advance in the field of waste management through the promotion of innovative technologies and effective practices. We are happy to announce that the series of our conferences keeps attracting the attention of the academia, private and public sector local authorities and businesses. This is proven by the gradual increase in the numbers of participants, the participating countries, the abstracts received and papers presented during the conference. We expect to have about 1,000 participants including both virtual participants and those traveling to Kos. It is the 4th time that our conference series travels to South Aegean, after the 3rd International Conference on Sustainable Solid Waste Management in Tinos Island in July 2015, the 6th International Conference on Sustainable Solid Waste Management in Naxos Island in June 2018, the 11th International Conference on Sustainable Solid Waste Management in Rhodes Island in June 2024.

Every year significant effort is made to improve the quality of the papers and keep high standards. At the same time, efforts are continuous in order to achieve high quality services for the conference participants. It is also important to mention the introduction for the 1st time of a 2nd Summer School prior to the conference. This is the 1st Summer School on LCA for circular waste management (LCA4WASTE). At the same time, we also have had the 8th version of the Summer School and Executive Training on Solid Waste Management & Circular Economy. Of course, our aim is also to continue these summer schools prior to the conference in the future and give emphasis on different research fields every year.

The KOS 2026 Conference aims to stimulate the interest of scientific community, competent authorities of public and private sector including local authorities, businesses, financial institutions, policy makers and society and present the latest developments and achievements in the field of solid waste management with special emphasis on municipal solid waste. Waste prevention, source separation, recycling and production of secondary materials, biological Treatment (aerobic & anaerobic), the treatment at central facilities constitute priority subjects of the conference agenda. Attention is drawn to bioprocesses, biorefineries in waste management to close the loops, circular economy and bioeconomy and of course WASTEtoENERGY with the contribution of the Waste-to-Energy Research and Technology Council, which was founded in Columbia University, that is a co-organiser of this conference. Emphasis is placed on circular economy in all key action areas (production, consumption, waste management, secondary raw materials, innovation, investment & monitoring) and all priority sectors (food waste, plastics, biomass and bio-based-products, construction & demolition waste, critical raw materials, textiles, etc.). This year we also have for the first time a session for scaling-up advanced biodegradable and recyclable polymers for sustainable packaging materials & a session for hydrogen: solutions & innovations for H₂ production, efficient storage, distribution & applications / methanol and other sustainable biofuels

The Conference will provide an opportunity to bring together scientists & professionals from government departments, industries, Municipalities, private institutions, research & education institutions, being a forum for the exchange of the most recent ideas, techniques & experiences in a broad area of waste management. A special Session will focus on solid waste management and the

13th International Conference on Sustainable Solid Waste Management

role of Local Authorities & Municipalities to promote separation at source for taking advantage of both recyclable materials and biowaste, increasing the recycling rates in the framework of circular economy era, promote energy recovery from residues and get closer to the ambitious target of 10% landfilling with the support of financial incentives, such as the landfill tax and the pay as you throw schemes. The Conference agenda is rich and dense, offering a considerable variety of topics presented through more than 500 presentations within the twenty-eight different oral sessions and an extensive poster session with about 190 posters.

In addition, it is our intention to enlarge the conference benefits and increase the networking potential by including parallel sessions and events of ongoing projects prior to the conference or/and within the conference agenda.

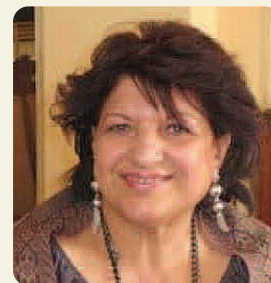
This year we will have:

- The Kick-off meeting of the **HORIZON EU-India BIOHAVEN project** with title: BioHAVEN: Boosting H₂ production from high water content biowaste with negative carbon emissions, coordinated by Malardalens Universitet
- The review meeting and the open forum event of the **HORIZON EUROPE FERTICOVERY project** with title: Best available techniques to recover or recycle fertilizing products from secondary raw materials, coordinated by B.T.G. Biomass Technology Group BV
- The project meeting and the workshop session of the **HORIZON EUROPE FUELGAE project** with title: Sustainable On-site and Innovative Technologies for Advanced Transport BioFuels from MicroalGae, coordinated by Agencia Estatal Consejo Superior de Investigaciones Cientificas (CSIC)
- The session of the **HORIZON EUROPE EU/China AgriLoop project**: integrated approach to safely convert agri-residues into proteins, biodegradable plastic and others biochemicals, coordinated by INRAE
- The session of the **CBE LANDFEED Project** with title: Transforming waste into sustainable biofertilisers, coordinated by Neiker
- The project meeting and the workshop of the **Erasmus SWARM project** with title: Sustainable plastic waste and recycling management capacity building, coordinated by NTUA.
- The session of the **HORIZON EUROPE CRONUS project** with title: Capture and Reuse of biogenic gases for Negative-emission-sustainable biofuels, coordinated by NTUA
- The session of the **LIFE CO₂toCH₄ project** with title: Demonstration of a mobile unit for hybrid energy storage based on CO₂ capture and renewable energy sources, coordinated by PPC Renewables
- The session of the **LIFE DIMITRA project** with title: Valorising anaerobic digestates into bio-fertilisers for climate friendly agriculture, coordinated by NTUA.

Lastly, the LIFE 2026 Info Day (in Greek) has been scheduled on Thursday 26th June 2026 organized in collaboration with the Green Fund. We would like to thank you all very much for joining us this year. Many of you are repeaters and we certainly appreciate that very much and we will continue our attempts to do our best at all levels in order to enlarge this warm conference family and meet every year. Also, we would like to thank the co-organisers, the **Region of South Aegean, the Municipality of Kos** and the **Waste-to-Energy Research & Technology Council**, and, of course, the sponsors for the support to the conference and the Municipality of Nisyros for the support in organising the visit in Nisyros on Sunday 28th June 2026.

We hope you will find the KOS 2026 Conference interesting, useful and up to your expectations. After the hybrid Conference in Corfu in 2022, in Chania 2023, in Rhodes 2024 and Paphos 2025, we are happy that even more speakers join us this year with physical presence and I welcome you all, either joining us with virtually or with physical presence or virtually here in the lovely Kos Island. Kos is the third largest island in the Dodecanese group. It's a popular destination amongst travellers. Families, friends and couples enjoy its nightlife, local food, activities and accommodation. The island offers everything you can wish for. Locals are hospitable, the beaches are sublime, the villages are picturesque and there are plenty of historic sites for you to explore. Kos, home of Hippocrates, father of medicine, gives the impression of an open-air museum, where you will see ancient and mediaeval monuments as well as numerous archaeological sites, and spot the buildings dating back to the Italian Rule. It's a destination for all ages and tastes but especially if you love activities in nature!

I wish you all a pleasant stay and enjoy the beauties of Kos.



Maria Loizidou
NTUA Professor

13th International Conference on Sustainable Solid Waste Management

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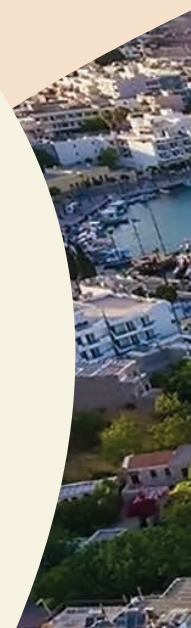
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Pascale Champagne, National Research Council of Canada



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13th International Conference on Sustainable Solid Waste Management

Conference Venue

• Conference Venue

The conference will take place at **Kipriotis Panorama Hotel & Suites**

- Odyssea Elyti, Kos 853 00
- Tel: +30 2242057000
- Email: conferences@kipriotishotels.com

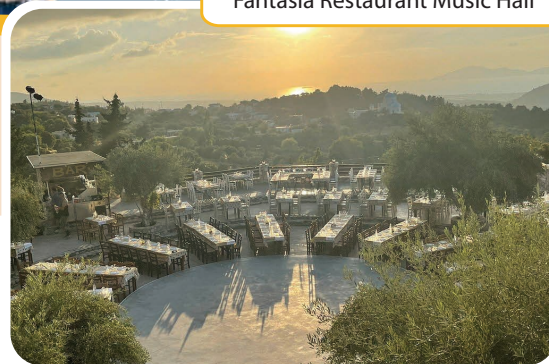


Fantasia Restaurant Music Hall

- The **Welcome Cocktail** will take place on **24th June** after the end of the conference sessions at **KOS Marina**.

(<https://kosmarina.gr>)

- The **Gala Dinner** will take place at **Fantasia Restaurant Music Hall on Thursday 25th June**. Bus transportation will be available after the end of the afternoon sessions.



Vineyards Triantafyllopoulos



Nisyros Island Volcano



- The **one-day site visit-excursion** in Kos will be organised on **Saturday 27th June 2026** (International Hippocratic Foundation of Kos, archaeological site of Asklepieion, Hippocratic Oath Ceremony, Kos Olive Oil Plant Papadimitriou, Vineyards Triantafyllopoulos, Agios Stefanos Beach).

- A **one-day site visit in Nisyros Island** (volcano, Nikia, Volcanological Museum of Nisyros, Mandraki) will take place on **Sunday 28th June 2026** (staying in Nisyros for 5 hours, from 10.30 until 15.30) and we will be back at Kardamena, Kos at around 16.30.

08.00-9.15

Registration

9.15-9.45

**COLOSSOS
ROOM**

Welcome Speeches

9.45-11.15

Keynote Speakers

Chair: M. Loizidou, K. Moustakas, D. Malamis

Arnoldas Milukas, European Research Executive Agency

European Commission EU Research and Innovation: New Funding Opportunities for the Circular Economy

Nicolas Abatzoglou, Université de Sherbrooke

Conversion of waste plastic to valuable nanocarbons: A new technology successfully crosses the 'Death Valley'

Debora Fino, Politecnico di Torino

From lab innovation to circular industry: engineering the path to absolute sustainability

Katia Lasaridi, Harokopio University

Beyond the Bin: Understanding and Changing Behaviors to Prevent Food Waste

Irini Angelidaki, Danish Technical University

Microbial Consortia Powering the Green Biotech Revolution

11.15-11.45



Coffee Break

**COLOSSOS
ROOM
SESSION I**

**MSW management
Experience of local authorities in waste management
Chair: M. Loizidou, K. Moustakas**

11.45-12.00	M. Grafakos, General Secretary for the Coordination of Waste Management Solid waste management in Greece
12.00-12.15	C. Gamvroudis From Organic Waste to Circular Value: An Innovative Home Composting Program for the South Aegean Region
12.15-12.30	J. Constantinidou Council Conclusions on the EU Bioeconomy Strategy during Cyprus Presidency
12.30-12.45	M. Geranis Circular Economy: From theory to practice
12.45-13.00	N. Aggelopoulos Waste management in Peloponnese Region
13.00-13.15	P. Kafasis Waste Management in Western Macedonia
13.15-13.30	Th. Nikitaras, Kos Mayor Waste Management in Kos Island
13.30-13.45	Chr. Koroneos, Nisyros Mayor Solid Waste Management in Small Islands: The Case of Nisyros Island, Greece
13.45-14.00	G. Iliopoulos, K. Moustakas, C. Psomopoulos Circular Cities Forum Greece: Catalyzing Urban Transformation Through Circular Economy
14.00-14.15	J. Garamazi Ilia MBT: Seven Years of Experience under a PPP Scheme – Performance and Future Upgrade Pathways
14.15-14.30	St. Sideri, Th. Retsina APILOT Greece: A Flexible Multi-Feedstock Demonstration Biorefinery for Europe's Bioeconomy
14.30-14.45	K.G. Sakellariou, M. Zhurka, N.K. Ntavos, E. Papista, I.A. Vasiliadou, Z. Frontistis, P. Kafasis Circularity in residual streams processing

14.45-15.00 F.K. Athanasopoulou
Data-Driven Forecasting of Economic and Logistical Impacts for Regional Waste Management: Integrating Real-World Operational Data with GIS Routing Optimization for Peloponnese FODSA (Greece)

14.15-15.00 Lunch Break

**IALLYSSOS
ROOM**
SESSION II

FERTICOVERY Session:
**Best Available Techniques to recover or recycle
fertilising products from secondary raw materials**
Chair: A. Milukas, S. Rocca, M. Vis, M. Kyriazi



11.45-12.00	A. Milukas, S. Rocca Welcome & Introduction
12.00-12.15	M. Vis General Presentation of FERTICOVERY Project
12.15-12.25	M. Kyriazi, St. Klempetsani, K. Moustakas, M. Loizidou Short presentation of the selected 25 cases studies from the Ferticcovery consortium
12.25-12.35	F. Corona From Longlist to Shortlist: A Structured Methodology for Selecting 25 Promising Technologies for Circular Fertilising Products in FertiCcovery
12.35-12.45	K. Chojnacka Digital Fertiliser Product Passport: Standards, Data Architecture and Compliance
12.45-12.55	M. Mironiuk, G. Izydorczyk, D. Skrzypczak, K. Chojnacka Comprehensive analysis of the composition of bio-based fertilisers - a study of 25 cases
12.55-13.05	G. Izydorczyk, R. Taf, D. Skrzypczak, M. Mironiuk, K. Chojnacka Microbiological aspects of bio-based fertilisers: risks, environmental safety, and potential impact on soil

13.05-13.15	D. Skrzypczak, G. Izydorczyk, M. Mironiuk, K. Chojnacka Germination tests as a tool for assessing the impact of bio-based fertilisers on early plant development
13.15-13.00	D. De Wilde Nitrogen recovery from waste streams using Dettricon's Ammonia Mining Unit (AMU)
13.30-13.45	Ap. Tsampouniari Closing the loop, from sea to soil
13.45-14.00	I. Leifert Composting and co-fermentation technology: established and state-of-the-art methods for bio-waste treatment and compost production at the WANLO and AHRENSFELDE sites (Germany)
14.00-14.45	Round table: Bio-based Fertilisers Value Chains, challenges and Perspectives
14.45-15.00	T. Kalisky The FERTITEC project

**ASCLIOS
ROOM
SESSION III**

**FUELGAE Session: Closing the Carbon Loop:
Converting CO₂ and Waste Streams into Scalable,
Zero Waste Advanced Fuels
Chair: S. Morales de la Rosa, G. Penloglou,
Cl. Agrapidis**



11.45-12.00	S. Morales de la Rosa Introduction - Guidelines, Brief Presentation about the FUELGAE project: Innovative sustainable on-site technologies for using microalgae to capture CO ₂ and produce advanced biofuels
12.00-12.15	G. Penloglou, A. Pavlou Advanced closed photobioreactor configurations for enabling scalable microalgae conversion of industrial CO ₂ into biofuel precursors
12.15-12.30	S. Hidalgo-Ruiz, J.M. Campos-Martin, S. Morales de la Rosa Development of microalgae treatment using hydrated inorganic salts for the production of advanced liquid fuels

12.30-12.45	N. Spegazzini, J. Laine, A. Mäyrä, A. Pavlou, G. Penloglou On-line sensor validation for microalgae bioprocess monitoring: time-gated Raman spectroscopy and automated microscopy at pilot scale
12.45-13.00	E. Bekou, J. Enriquez, C. Paraled, A. Iranzo, J. Domingo CFD-Derived Digital Twin for Predictive Operation of Photobioreactors: Coupling Hydrodynamics, Mass Transfer and Algal Growth
13.00-13.15	A. Rodenas, C. Bartolome Environmental Life Cycle Assessment of Advanced Biofuel production from Microalgae
13.15-13.30	M. Ohenoja, K. Tiirö, J. Tomperi, M. Ruusunen Optimisation of microalgae-derived aviation biofuel production chain: Short-cut modelling
13.30-13.45	D. Malamis, K. Passadis, S. Mai, E. M. Barampouti, K. Moustakas CRONUS: Capture and Reuse Of biogenic gases for Negative-emission - sustainable biofuels
13.45-14.00	Y. K. Wedmark ALGAESOL – Sustainable aviation and shipping fuels from microalgae and direct solar BES technologies
14.00-14.15	M. Christou ICARUS International Cooperation for Sustainable Aviation Biofuels
14.15-14.45	Panel Discussion: Closing Remarks

**SOCRATES
ROOM**

Construction & Demolition Waste

Chair: J. L. Hao, E. Barampouti, A.P. Galvin, C. Gutiérrez Palacios

SESSION IV

11.45-12.00	A. Korba, L. Lekawska-Andrinopoulou, E. Dimopoulou, K. Chatziioannou, G. Tsimiklis, A. Amditis Design of a Scenario-Based Material Flow Analysis Tool for Optimised Construction and Demolition Wood Waste Management
12.00-12.15	M. E. Erguclu, C. A. Arslan, T. C. Ozlu, B. Canli, E. Gulcan From Waste to Value: Lessons from the United Circles Ankara Hub on Construction and Demolition Waste, Industrial Symbiosis, Digital Traceability, Governance Innovation, Social Transformation and First-of-a-Kind (FOAK) Technology Innovations
12.15-12.30	E. M. Barampouti, S. Mai, F. Kourmousis, A. Argyriadou, K. Moustakas Greek circularity Hub for the management of construction and demolition waste in the Region of Eastern Macedonia & Thrace in Greece
12.30-12.45	R.G. Gade SmartBin: An Internet of Things-Based Approach for Real-time Construction and Demolition Waste Assessment
12.45-13.00	W. Zhao, J.L. Hao A dynamic model to track environmental impacts of residential construction waste toward a low-carbon future by 2050
13.00-13.15	K. Manabe, T. Shimaoka Lessons Learned from Disaster Waste Management Following the 2024 Noto Peninsula Earthquake and Preparedness for Future Large-Scale Disasters
13.15-13.30	M. Georgiades, P. Pigiotis, Th. Polydorou, M. F. Petrou Coupling life cycle assessment with mechanical properties for hot and half-warm asphalt mixtures incorporating reclaimed asphalt pavement and cement kiln bypass dust
13.30-13.45	C. Gutiérrez Palacios, C. Javier Mendoza Escobedo, J. López Roman, F. Hernández Díaz Performance of structural concretes, class 2, manufactured with recycled aggregates for use in housing construction in the metropolitan area of the Valley of Mexico
13.45-14.00	A. Masi, S. Raschia, F. Marafioti, E. Gubbiotti, S. Proietti, S. Tattolo, G. Costa, R. Baciocchi Evaluation of the chemical and physical properties of artificial aggregates from stainless steel slag treatment during natural and accelerated weathering

14.00-14.15	M.C. Samolada, Th. Stamatīs Drawbacks for Sustainable Management of Excavation & Demolition Waste
14.15-14.30	A. P. Galvín, N. Briceño, J. Aguilar, R. Linares, A. López-Uceda Influence of Origin and Production Systems on the Technical and Environmental Performance of Recycled Aggregates from CDW
14.30-14.40	K. Lee, M. Oh, J. Hwang, S. Sohn, B.K. Seo Trends in the Development of Concrete Waste Recycling Using Advanced Separation Technology in the Nuclear Field
14.40-14.50	G. Montesano, P. Stabile, A. Bisciotti, G. Bianchini, F. Radica, M. Menna, M. Ciulla, L. Terribili, A. Casarin, G. M. Salani, P. Di Profio, M. De Vincentis, S. Biondi, G. Vessia, E. Paris, G. Cruciani, G. Iezzi Crystal-chemical variations of CDW as a function of grain-size via XRPD, XRF and ATR FTIR characterisations: towards an effective reuse
14.50-15.00	F. Radica, G. Montesano, G. Bianchini, G.M. Salani, S. Di Giacomo, P. Stabile, M. Menna, I. Capasso, P. Di Profio, R. Piccioni, V. Bernardini, G. Iezzi RCA (recycled concrete aggregate) through time: a textural, mineralogical, chemical, leachate and vibrational spectroscopic study

**COLOSSOS
ROOM**
SESSION V

Bioprocesses, Biorefineries in waste management
Chair: C.A. Cardona Alzate, N. Abatzoglou, F. Battista

15.00-15.15	M. Papageorgiou, E. Nanaki, S. Kiartzis, D. Kiriazidis, V. Simitsis, D. Viesi Embracing Energy Management Flexibility in Critical Infrastructures: An Industrial Perspective
15.15-15.30	A. Dimitriadis, D. Liakos, N. Grammatikopoulos, M. A. Pilitzidis, S. Bezergianni Producing Advanced Aviation and Maritime Biofuels in Existing Refineries Utilizing Solid Wastes: The ABATE Vision
15.30-15.45	St. Papagianni HYFUELUP: Feasible biomass supply chains

15.45-16.00	A. A. Duarte Pinheiro, F. Rizzioli, W. R. Moreira Leite, F. Battista Exploring different operational conditions for the optimization of chain elongation from Organic Fraction Municipal Solid Wastes
16.00-16.15	J. Hogie, E. Selmurzaeva, S. De Meester Energy-efficient purification of fermentation-derived volatile fatty acids using a novel multistep process integrated with mechanical vapor recompression
16.15-16.30	N. Hernandez-Alcayaga, G. Campo, A. Cerutti, M. Zanetti, B. Ruffino Impact on nitrogen removal and EPS characterization of a salinity stress in membrane aerated biofilm reactors
16.30-16.45	I. Malique Chowdhury, M. José Negro, J. Contreras García, J. L. Fernández-Rojo, A. D. Moreno Effective bioprocessing of textile waste for simultaneous production of microbial oil and carotenoids by <i>Rhodospiridium toruloides</i>
16.45-17.00	B. Muñoz-Madariaga, E.M. Rojo, M. Molinos-Senante, R. Irusta-Mata, S. Bolado Techno-Economic Evaluation of Biorefinery for Valorising Microalgae–Bacteria Biomass from Piggery Wastewater
17.00-17.15	A. Pavlou, A. Tzika, A. Charalampous, O. Kotrotsiou, K. Kalogiannis, G. Penloglou Intensification of polysaccharide and lipid production via microalgae cultivation under CO ₂ -rich industrial conditions
17.15-17.30	D. M. X. Sanai, N. L. Sabino, K. A. S. Souza, K. J. Dussán, D. D. V. Silva Efficient Conversion of Coffee Waste Hydrolysate to Lactic Acid by Lactic Acid Bacteria
17.30-17.45	G. Zampieri, L. Francescato, M. Mantovani, M.C. Valerin, E. Brivio Sforza, R. Reinhardt, M. Berden-Zrimec, E.M. Barampouti, S. Campanaro, S. Mai, E. Ficara, D. Malamis, L. Treu Decoding carbon and nitrogen dependencies in an algae-bacteria system for the valorisation of waste CO ₂ and digestate
17.45-18.00	D. C. Liakos, A. Dimitriadis, S. Bezergianni From microalgae towards renewable fuels: hydrothermal liquefaction and catalytic hydrotreatment
18.00-18.15	M. M. de-Souza-Ribeiro, A. Casas González, L. Velasco-Muñoz, S. Rodríguez-Rojo, E. Alonso Comprehensive recovery of shrimp shell waste (<i>Litopenaeus vannamei</i>) using ultra-fast subcritical water technology: Towards a zero-waste biorefinery

18.15-18.30	Linyang Li, Junjun Wu, Ao Xia, Xun Zhu, Qiang Liao Depolymerization of Lignocellulosic Biomass by Contact-Electro-Catalysis
18.30-18.45	G. Torres, M.P. Díaz, J.A. Dávila, C.A. Cardona Cold Extraction of Bioactive Compounds from Eucalyptus globulus Leaves: A Sustainable Approach for Biomass Valorization
18.45-19.00	A. Priyadarshini, Brijesh K. Tiwari, S. Duffy, J. Uprichard, G. Rajauria Assessing the feasibility of a waste to protein biorefinery system through stakeholder engagement
19.00-19.15	An. Satpathy, K. Mukherjee, V. Kumar Nigam Valorization of Pectin-Rich Fruit Waste for Optimized Pectinase Production by Thermophilic Bacillus siamensis (BIOSMNF45)

**IALYSSOS
ROOM**

**SESSION VI
PART A**

**HORIZON EUROPE CRONUS project:
Capture and Reuse of biogenic gases for
Negative-emission-sustainable biofuels
Chair: D. Malamis, M. Loizidou**



15.00-15.15	D. Malamis General presentation of the HORIZON CRONUS Project
15.15-15.30	S. Mai Functional Prototype 1 in Athens, Greece
15.30-15.45	P. Kougias Functional Prototype 2 in Thessaloniki, Greece
15.45-16.00	I. Angelidaki Functional Prototype 3 in Copenhagen, Denmark
16.00-16.15	J.-M. Commandré Functional Prototype 4 in Montpellier, France
16.15-16.30	D. Hidalgo Functional Prototype 5 in Boecillo, Spain

16.30-16.45 N. Kamergi
Conceptual and operational integration of financing and business models for innovative biogenic CCUS solutions: Outcomes from the CRONUS project

**IALYSSOS
ROOM**

**SESSION VI
PART B**

Climate change mitigation and adaptation through Nature-Based Solutions / Carbon & Water Footprint

Chair: S. Malamis, M. Zubrowska-Sudol, M. Popova, I. Janajreh

16.45-17.00 M.A.M. Costa, G. Albin, L.O. Freitas, A.T. Rizzo Iritsu, A.J. da Mota, T.L. de Oliveira Moura, A. Sarti, A.J.D. Souza, K.J. Dussan
Evaluation of the potential of absorbents applied in Venturi scrubbers operating in CO₂ capture

17.00-17.15 M. Popova, M. Dimitrov, S. Grozdanova, S. Boycheva, N. Marinkov, D. Karashanova, D. Kovacheva
From waste materials to efficient CO₂ capture adsorbents

17.15-17.30 M. Peinsipp, L. Stifter, C. Wartha, V. Reisenhofer, A. Bidló, P. Balázs, A. Horváth
Management of biogenic residues and invasive plants through pyrolysis for soil resilience and carbon sequestration in natural habitats of Austria and Hungary

17.30-17.45 S. Grozdanova, I. Tenda_Iova, A. Szegedi, P. Shestakova, Y. Mitrev, I. Slavchev, S. Simeonov, M. Popova
CO₂ Adsorption on Modified Mesoporous Silica Xerogels Prepared by p-toluenesulfonic Acid-Assisted Synthesis

17.45-18.00 A. Lete, J. Sanz, Á. Millera, I. Fonts, G. Gea
Ammonia capture by rice husk biochar with formation of ammonium-enriched material

18.00-18.15 A. Sumjath, A. Nemmour, I. Janajreh
Mineral Recovery Potential from Hypersaline Brines via Eutectic Freeze Crystallization

18.15-18.30 B. Karolinczak, M. Żubrowska-Sudol
Sustainable water reclamation and reuse in the waterfront area

18.30-18.45 S. Kori, R. Kumar, M. Kumar, P. Ghosh, V. Kumar
Development of an Innovative Modified Dry Pit Sanitation System for Water Stressed Rural India

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| 18.45-19.00 | V. Vorne, A. Reinikainen, K. Kuligowski, I. Konkol, M.L. Christensen, J. Zviedris, J. Dvarioniene, T. Pedusaar, S. Guyon, H. Poltimäe, A. Hoy
Decentralised Wastewater Treatment Under Seasonal Pressure: Lessons from the Moonsund Archipelago and the Baltic Sea Region |
| 19.00-19.15 | V. Grace Barros, V. Hein Teixeira, D. Lucatelli, L. Romero Monteiro, Y. da Silva Dalonso
What do we have for waste? Besides tomatoes, seasonal fruits |

**ASCLIPIOS
ROOM**

**SESSION VII
PART A**

LANDFEED Session: Transforming waste into sustainable biofertilisers

Chair: S. Rocca, M. Pinto, B. Iñarra, K. Chojnacka, G. Mancini



LANDFEED

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| 15.00-15.15 | M. Pinto
General presentation of the LANDFEED project |
| 15.15-15.30 | M. Cebrián, J. Ibarruri, C. Bald, D. San Martín, B. Iñarra
From HORECA Wastes to Biofertilizers: Optimised Fungal Solid-State Fermentation for Sustainable Agronomic Ingredients |
| 15.30-15.45 | E.M. Barampouti, S. Mai, M. Kyriazi, M. Avramidi, K. Moustakas
Closing the Loop: Scalable Technologies for Converting Olive Mill Waste into Fertilisers |
| 15.45-16.00 | A. Luciano, T. Beltrani, L. Cutaia, E. De Marco, P. Porta, L. Gurreri, G. Mancini
Stakeholder engagement and Industrial symbiosis networks for the biobased fertilizers value chain: the LANDFEED project |
| 16.00-16.15 | G. Testa, A. Luciano, C. Dell'Aquila, G. Recupero, L. Gurreri, G. Mancini
Exploitation of local organic residues for biobased fertilizer production: The Landfeed Project |
| 16.15-16.25 | A. Wijatkowska, R. Taf, F. Gil, D. Skrzypczak, K. Chojnacka
Characterisation of a dairy processing by-product as a raw material for organo-mineral fertiliser production |

- 16.25-16.35 F. Gil, R. Taf, A. Wijatkowska, D. Skrzypczak, K. Chojnacka
Optimisation of acid and alkaline hydrolysis of dairy waste for enhanced nutrient availability
- 16.35-16.45 R. Taf, A. Wijatkowska, F. Gil, D. Skrzypczak, K. Chojnacka
Organo-mineral fertiliser and biostimulant as products of sequential chemical and enzymatic processing of dairy waste

**ASCLIPIOS
ROOM**

**SESSION VII
PART B**

LIFE CO₂toCH₄
Chair: A. Antoniadis, A. Zouboulis, P. Kougias



- 17.00-18.30 A. Antoniadis, P. Kougias
Project Overview & Project Management
Panel Discussion
M. Tokas, TITAN Cement Industry
K. Koumenidis, HERAKLIS Cement Industry
J. Garamazi, MESOGEOs

**SOCRATES
ROOM**

WEEE & Batteries

Chair: B. Ruffino, P. Sospiro, Chr. Argirusis, J. Čespiva

SESSION VIII

15.00-15.15	K. Veroni, A. Galazios Paying Today for Tomorrow's Hazard: A Dynamic Financial Model for Li-ion Battery Waste
15.15-15.30	E. Martinková, O. Šebek, A.V. Andronikov, M. Štěpánová, J. Čuřík, F. Veselovský, Z. Čvančarová, V. Chrástný, A. Komárek Cadmium, zinc and copper isotope fractionation and lead isotopic composition during thermal processing and digestion of e-waste dust samples
15.30-15.45	M. Van Melkebeke, R. Kol, E. Selmurzaeva, T. Van Laere, J. Suk Coene, J. Sercu, H. Poelman, K. Van Geem, S. De Meester, D. Manhaeghe Identification and Quantification of Brominated Flame Retardants in WEEE Polystyrene via Py-GC-MS
15.45-16.00	M.G. Genduso, B. Yaraşık, M. Guagliano, M. Di Virgilio, M. Bellotto, C. Cristiani, G. Dotelli Loss of Critical Raw Materials in the E-Waste Value Chain: towards a Sustainable Strategy for Metal Recovery
16.00-16.15	M. Šyc, M.H. Golpayegani, P. Kameníková, E. Korotenko Current Status and Future Outlook of Critical Raw Materials in the Czech Republic
16.15-16.30	K. Nagyová Innovative Circular Upcycling of Spent NdFeB Magnets from End-of-Life Hard Disk Drives: TRL6 Demonstration within the NEO-CYCLE Project
16.30-16.45	S. Ahmed, D. Bregoli, C. Bruno, M. C. Liscio, P. Sospiro, D. Vangi Smart Shared Mobility in Small Urban Cities: A Comparative Case Study of Micromobility
16.45-17.00	S. Ahmed, M. Giurato, M.-S. Gulino, M. Laschi, M. C. Liscio, P. Sospiro, D. Vangi Sustainable Micromobility in Practice: Updates from the LIFE2M Project
17.00-17.15	A. Birtürk, C. Kensy, S. Pavón, A. Michaelis Valorisation of rare earth elements from phosphogypsum wastes into battery materials
17.15-17.30	B. Hansel, C. Pätzold, M. Bertau Recovery and material utilization of LiPF ₆ as conducting salt of lithium-ion batteries

17.30-17.45	E. P. Mateus, J. Almeida, Carolina Pires, A. B. Ribeiro Electroanalytical recovery of lithium from waste streams: moving towards a circular economy approach
17.45-18.00	D. Castañeda, J. Negrete, C. Gutiérrez, M. R. González, G. Fernández Photovoltaic Modules: Beyond Life's End
18.00-18.15	C. Chianese, A. Dal Pozzo, V. Cozzani Competitive Sorption in Acid Gas Abatement: NaHCO_3 Reactivity with HBr and HCl
18.15-18.30	S.-K. Zervou, K. Papanikola, S. Georgiadis, P. Papoulas, P. Papagiannakopoulos, T.M. Triantis, A. Hiskia Degradation of Explosives using MuniRem Products
18.30-18.45	N. C. de Leon, V. Timothy F. Garcia, Aldrin Jelo S. Tobias, Leahchim Emerlinda M. Edwards, J. R. Ortenero, A. B. Beltran, A. H. Orbecido, M. A. B. Promentilla, L. B. Patacsil Degradation of Emerging Contaminant of Concern in Wastewater Using NiZnSe-Modified Nickel Foam Electrode
18.45-19.00	P. Preda, A. Dal Pozzo, D. Frascari, D. Mascheroni, S. Tondini, V. Cozzani Integrated water washing and accelerated carbonation of APCr: role of residual moisture in meeting non-hazardous landfill criteria
19.00-19.15	F. Humeyra Buyuktoprak, S. Gulcimen, N. Uzal, N. Ates Medical Imaging Devices Environmental Impact Assessment

Poster session

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| <p>01 J. F. Hernandez-Arango, C. A. Cardona Alzate
Study of corn stover as a feedstock in the production of biochar-based fertilizers</p> <p>03 C. A. Cardona Alzate, Sh. St. Bravo Argote, J. F. Hernandez, L. Hidalgo Giraldo
Comparative assessment of technologies to produce sustainable aviation fuels from lignocellulosic biomass</p> <p>05 I. Kniupytė, A. Dikšaitytė, M. Praspaliauskas, J. Žaltauskaitė
Climate-Modulated Cadmium Phytoremediation: Biomass, Uptake, and Removal Efficiency of Brassica napus</p> <p>07 B. Halder, M. Kumar Sampath, V. Kumar Nigam
Sustainable Recovery of Critical Metals from PCBs via Integrated Bioleaching</p> <p>09 D. Hidalgo, F. Infante, J.M. Martín-Marroquín
Novel process for the recovery of food-grade CO₂ and aromas from wine fermentation off-gas</p> <p>11 D. Vamvuka, I. Papakyriakopoulos, K. Kyriakidis, S. Sfakiotakis, D. Pentari
Valorization of a bio-solid for the production of a H₂-rich gas through CO₂ capture by a waste material and for soil amelioration</p> <p>13 H.A. Abdullah, G. McKay, M.N. Alherbawi
Integrated Anaerobic Digestion and Composting for Energy and Material Recovery from Dairy Waste in Arid Climates: A Case Study from Qatar</p> <p>15 E. López-Fernández, J. Comendador, C. Caballero, J. Villaseñor, J. Llanos
Sustainable non-enzymatic glucose sensors from residual biomass-derived carbon materials</p> <p>17 V. Buysse, R. Kol, S. De Meester
Removing solvent traces to achieve food quality polymers from dissolution recycling</p> | <p>02 A. Libault, S. Jarosz, M. Elakrouch, M.H. Jijakli
BIOBOOST-PRO: Demonstrating and Enabling Bioponics Using Manure-Based Organic Fertilizers in North-West Europe</p> <p>04 M. Klučáková, P. Závodská
Progressive methods for investigation of migration of pharmaceuticals in soils</p> <p>06 N. Gkolfinopoulou, S. Spanoudakis
Source separation scheme for solid waste in the Historic Centre of Rethymno</p> <p>08 G. Kolvekova, M.C. Liscio, A. Piekara, P. Sospiro
European Textile and Fashion Associations: potential to boost sustainability in the fashion sector</p> <p>10 I. Kniupytė, I. Sinkevičiūtė, A. Sinkevičienė, R. Kimbirauskienė, M. Praspaliauskas
Zinc Oxide Nanoparticle Impact to Phytoremediation of Cd-Contaminated Soil Using Brown Mustard (Brassica juncea L.)</p> <p>12 C. Eliopoulos, I. Kalapothareas, P. Samara, M. Tselios, G. Markou, P. Sourri, A. Liatiri, D. Arapoglou
Solid-state fermentation initiated by Pleurotus ostreatus on tomato and cucumber greenhouse crop residues: Impact on the nutritional profile and solanine content</p> <p>14 N.N Hou, K. Ye, M.Z. W, J. W, Z.X. She, J.S. Song, J.K. Z, G.Z Zhang, Y. Zhou, H.T. Liu, Q. Zhu, Yang Mu
Lattice Hydrogen Engineering Unlocks Inert TiO₂ for H₂O₂ Electrosynthesis in Neutral Media</p> <p>16 D. Hidalgo, E. Pérez, M.A. Sánchez, J.M. Martín-Marroquín, A. Urueña, D. Díez, M. Andérez
Trade-offs between hydrochar quality and liquid fraction biodegradability in sewage sludge hydrothermal carbonization</p> <p>18 M. Solomon Chijioke, P. Amaechi Ako (formerly Ozor), P. Ogechukwu Uzor
Mechanical characterization of paraffin wax-kaolin-paraffin oil composites in thermal energy storage applications</p> |
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| <p>19 M. Vaňková, M. Mihaljevič, A. Vaněk
Solar panels – A global e-waste and a secondary source of CRM</p> <p>21 B. Sardari, N. Talebbeydokhti, A. Karimi-Jashni, S. Azadi, S. Mehrab Amiri
Optimization of Predictor Parameters for Municipal Solid Waste Generation using Feature Selection Metrics and a CNN–LSTM Model</p> <p>23 V. Crespo-Torbado, A. Álvarez-Ordóñez, R. Bodelón, Y. Chourak, PF. Rizzo, E. Garcia-Muchart, M. González-Raurich, M. López, M. Oliveira
Closing Nutrient Loops: Non-Thermal Atmospheric Plasma for Valorising Beetroot Processing Wastes</p> <p>25 A. Tehseen, G. Feijoo, S. González-García
Hydrogen production from manure: A prospective Life Cycle Assessment of anaerobic digestion and steam methane reforming pathways with carbon capture</p> <p>27 T. Mumladze, Kh. Kharazishvili, G. Denafas, I. Bochoidze, Ts. Turkadze, M. Gabidzashvili, N. Guleishvili
Recycling of Composite Multilayer Packaging Waste Through Solvent-Based Separation: Implications for Resource Recovery</p> <p>29 E. Carrieri, M. Stefanidou, A. Grass, M. Vanwynsberghe, S. De meester
Removal of insoluble additives from polystyrene by applying centrifugation in solvent-based recycling</p> <p>31 R.I. Pérez-Martín, M. Blanco, P.R. Ariza, L. Taboada, J.M. Bellido, A. Vera, C.G. Sotelo
ALIMAR Project: Valorization of Mediterranean jellyfish during summer blooms</p> <p>33 J. Marques Coimbra; K. Cristina dos Reis, R. Freitas Schwan, C. Ferreira Silva
Circular Valorization of Vinasse: Sustainable Single-Cell Protein and Aroma Production with Molasses</p> <p>35 E. Franco-Mateos, G. Murillo, M. Blecua-de-Pedro, A. Lerma-Canto, R. Gadea-Pont
Quantitative comparison of conventional and microwave-assisted heating in the ZnO-catalyzed glycolysis of virgin PET</p> | <p>20 A. Vaněk, M. Vaňková, M. Mihaljevič
Tracking the fate of contaminants from solar panels using stable isotopes</p> <p>22 S. Vicianá, D. Franco, J.A. Vázquez, L. Taboada, J. Sineiro, R. Moreira, A. Franco-Uría
Development and Characterization of HPMC-Based Oleogels for Fish Oil Oxidation Protection</p> <p>24 M. Prósperi de Oliveira Paula, C. Resende de Souza Castro, M. Magalhães Melo, J. Gomes de Lara, L. Silva Ribeiro, V. Satler Pylro, C. Ferreira Silva
Environmental Valorization of Biodiesel Residue: Bacillus-Derived Biosurfactants for Bioremediation</p> <p>26 T. Mumladze, Kh. Kharazishvili, Ts. Turkadze, I. Bochoidze, M. Nikoladze, M. Kukhianidze
Performance of Centralized Municipal Biodegradable Waste Composting: The Case of Kutaisi Composting Centre, Georgia</p> <p>28 I. Sinkevičiūtė, A. Sinkevičienė, R. Kimbirauskienė, M. Praspaliauskas, I. Kniuipytė
Exploring the single and combined effects of ZnO nanoparticles and cadmium on soil parameters</p> <p>30 M. Blanco, P.R. Ariza, R.I. Pérez-Martín, C.G. Sotelo
Availability, conditions and alternative management procedures for postharvest fish losses in local stakeholders (WASTE2TASTE Project)</p> <p>32 J.A. Gutiérrez-González, J.K Chenwi-Minang, A. Ramírez, M. Muñoz-Morales, J. Llanos, J. Villaseñor
Electrohydrolysis as a strategy to unlock biomethane production from concentrated waste-activated sludge</p> <p>34 V. Crespo-Torbado, M. Oliveira, R. Bodelón, C. Barcenilla, M. González-Raurich, M. Prieto, M. López, A. Álvarez-Ordóñez
Microbiological Assessment of Soil Improvers obtained from food waste: Evidence from Multi-Country Case Studies</p> <p>36 D. Sanguineti, M.C. Valerin, L. Francescato, G. Zampieri, R.A. Timmers, S. Campanaro, L. Treu
Metagenomics and metabolic modelling of anaerobic digestion coupled microbial electrolysis cell with different electrode types and voltage levels</p> |
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| <p>37 C.R.S. Castro, N.A.S. Ribeiro, F.E.F. Soares, C.F. Silva
Optimization and application of ligninase cocktails from sugarcane bagasse SSF for atrazine biodegradation</p> | <p>38 G. Murillo-Ciordia, C. Chaine
Microwave-assisted bio-based chemical recycling of fiber-reinforced composites from construction and demolition waste</p> |
| <p>39 M. Legan, A. Žgajnar Gotvajn
Life cycle assessment of conventional concrete and green concrete with wood waste biochar</p> | <p>40 M. Legan, L. Tratar, E. Friedl, A. Žgajnar Gotvajn
Terrestrial ecotoxicity of green concrete containing PET plastic waste</p> |
| <p>41 M. Wendeker
Green Hydrogen Production from Agricultural Biomass via Hybrid Chemical Looping with Active Bed Regeneration</p> | <p>42 F. Corona, F. Verdugo, F. Burgoa, D. Hidalgo
Multi-criteria screening and prioritisation of nutrient recovery and bio-based fertiliser technologies from secondary raw materials</p> |
| <p>43 F. Corona, R. Timmers, J. Martín-Marroquín, F. Berride, F. Burgoa, D. Hidalgo
Laboratory-scale evaluation of capacitive deionisation for efficient desalination and industrial water reuse</p> | <p>44 M. Biasiolo, N. Khorramian, G. Tassinato, C. Cavinato
Influence of Organic Loading and Zeolite Addition on Organic Waste Fermentative VFA Production</p> |
| <p>45 E.R. El-Sayed, A. Dunal, W. Pietrzak, E. Opiela, J. Grzelczyk, G. Budryn, H. Pérez-Sánchez, J.R.A. Fernández, F. Boratyński
A versatile platform for bioactive Monascus pigments: From waste-based biosynthesis to neuroprotective potential and food fortification</p> | <p>46 Jianguo Bao, Jiangkun Du, Qidi Mao, Benai Cheng
Sludge-Derived Biochar Cathode for Electro-Fenton Degradation of Tetracycline and Coupling with Anammox Process: Performance, Mechanism, and Energy Efficiency</p> |
| <p>47 O. Shahid, G. McKay, K. Mahmoud, R. Al-Gaashani, M. Pasha
Blending Biochar from Green and Woody Agriculture Waste in Qatar</p> | <p>48 D. Cardoza, C. Marzo-Gago, I. Romero, E. Castro
Production of acetic acid from vine shoots via phosphoric acid-catalyzed steam explosion and fermentation</p> |
| <p>49 H. Gao, S. A. Gujar, E. Selmurzaeva, N. Vermeeren, I. F. A. Daras, S. de Meester
Enzymatic deinking of LDPE films: Mechanistic insights into surfactant-enhanced catalyzed hydrolysis</p> | <p>50 N. A. S. Ribeiro, C. R. S. Castro, Â. D. B de Brito, C. F. Silva
Bacterial cellulose nanofilter produced from agro-industrial coproducts for atrazine removal from wastewater</p> |
| <p>51 K. Pušnik Črešnar, L. Šantl, Ol. Plohl, I. Ban, J. Stergar, L. Fras Zemljič
A Sustainable Multifunctional Approach to Food and Pharmaceutical Packaging Using a Modified Tannin-Based Functional Additive</p> | <p>52 C. Roperto, M. Bardin, M. Pugliese
Sustainable management of tomato gray mould using composts from food industry by-products</p> |
| <p>53 A. John, K. Pušnik Črešnar, D. Hvalec, M. Knez Marevci, D. N. Bikiaris, L. Fras Zemljič
From Colloidal Formulation to Functional Film: Predictive Design of Sustainable Pullulan-Based Active Coatings</p> | <p>54 N. Alizadeh, N. Argirusis, G. Sourkouni, Chr. Argirusis
Application of alginate protective layers for screen printed carbon electrodes (SPCE)</p> |

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| <p>55 E. Christoforidi, N. Argiris, N. Alizadeh, G. Sourkouni, Chr. Argiris
Application and testing of chitosan protective layers for screen printed carbon electrodes (SPCE)</p> | <p>56 I. Gómez-Cruz, E. Castro, A.J.D Silvestre, A.M. Da Costa Lopes
Cationization and conversion into nanoparticles of lignin from olive tree pruning using eutectic solvents</p> |
| <p>57 N. Argiris, G. Sourkouni, G. Krinas, L.-A. Tsakanika, I. Kanelopoulou, P. Georgiou, A. A. Zorpas
Detailed infrared spectra of refrigerant gases</p> | <p>58 E.R. Illyes, I. Tismanar, C. Cazan, L. Andronic
Valorisation of snail processing waste for sustainable agriculture within a circular economy framework</p> |
| <p>59 I. Ćurić, A. Pavlinović, D. Dolar
Effect of Operating Pressure on Reverse Osmosis Permeate Quality in a Hybrid MBR–RO Treatment of Textile Wastewater</p> | <p>60 J. Eimontas
Waste fishing nets thermal decomposition and valuable products recovery</p> |
| <p>61 F. Cecchini, A. Di Giuliano, K. Gallucci, V. Innocenzi, M. Prisciandaro
Assessment of Renewable Methanol as a High-Density Hydrogen Carrier for High-Temperature Fuel Cells: Process Integration and Life Cycle Sustainability</p> | <p>62 D. Moço, F. Morais, J. Almeida, M.J. Neiva Correia, F. Margarido, F. Pedrosa, M.J. Plancha, A.M. Gonçalves, C.A. Nogueira
Metals recovery from end-of-life Li-ion batteries by physical processing and hydrometallurgical treatment</p> |
| <p>63 O. Plohl, A. Erjavec, L. Čuček, A. Vesel, M. Čolnik, L. Fras Zemljič, J. Volmajer Valh
Accelerated Weathering-Induced Surface Degradation of Polyethylene Terephthalate and Melamine Etherified Resin Nonwoven Fabrics</p> | <p>64 E. El Bestawy, A. M. Abdel-Rahman Elmasry, A. Farag Mohamed Abd Elraouf, A. El-Koweidy
Performance optimization of microbial remediation of dairy wastewater using moringa oleifera seeds and psidium guajava leaves</p> |
| <p>65 H. Shalchian, F. Luberti, P. Romano, P. Ghorbanpour, F. Ferella, F. Veglio
Investigation of the leaching parameters on Pd recovery from spent catalyst</p> | <p>66 V. Taylor, E. Papadimitriou, P. Chaniotis
Environmental Impacts, Assessment and Prediction of Plastic Medical Waste Disposal in the Kingdom of Saudi Arabia under Sustainable Waste Management and Circular Economy Frameworks</p> |
| <p>67 V. Taylor, E. Papadimitriou
Microwave-Based Zero-Emission Medical Waste Treatment System for Sustainable Healthcare Operations</p> | <p>68 J. Skřínský, J. Čespiva, D. Kupka, J. Karl, B. Janovský
Fire and Explosion Characteristics of Dust Dispersions and Hybrid Mixtures under Non-Standard Experimental Conditions</p> |
| <p>69 J. C. Moreno-Piraján, L. Giraldo
Strong-Base Activated Carbons Derived from Recycled CDs and DVDs for Sustainable Wastewater Treatment</p> | <p>70 S. N. Bulla-Martínez, M. Ramos, L. Giraldo, J. C. Moreno-Piraján
Synthesis and 3D-Assisted Processing of MOF-Based Adsorbents for Diclofenac Removal from Aqueous Solutions</p> |
| <p>71 J.-I. Beltrán-Larrotta, B. A. Arenas Blanco, J. Serafín, L. Giraldo, J. C. Moreno-Piraján
Activated Carbons Derived from Water Hyacinth: Integrating Experimental Synthesis and Atomistic Modeling for CO₂ and H₂ Adsorption Applications</p> | <p>72 L. di Bitonto, V. Locaputo, B. Doria, M. Zeppilli, A. Marchetti, M. Agostini, M. Lacalamita, E. Mesto
HUMANFORHYDRO: Valorization of ligno-HUMic-like compounds derived from sewage sludge for the degradation of organic pollutants and production of HYDROgen</p> |

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| <p>73 V. Silva, A. Silva, A. Aires, R. Carvalho, L. Maltez, J.E. Pereira, G. Igrejas, P. Poeta
Strawberry Tree (<i>Arbutus unedo</i>) Flowers as a Sustainable Source of Phenolic Compounds with Activity against Canine Pathogens</p> | <p>74 V. Silva, G. Igreja, P. Poeta
Phenolic Compounds from Wine Industry By-Products: Antioxidant and Antimicrobial Potential against Antibiotic-Resistant Bacteria</p> |
| <p>75 I. Petrović, J. Milić, N. Kajiwar, B. Radak, B. Dunjić
Analyzing input and output of e-recycling facility for brominated flame retardants</p> | <p>76 Fr. Lia, K. Attard, M. Caffari
Enzymatic Extraction and Sulphur Dioxide Stabilisation Strategies for Preserving Phenolics in Olive Mill Waste</p> |
| <p>77 J. Milić, M. Ilić, T. Šolević-Knudsen, S. Miletić, J. Avdalović
Bioremediation of petroleum hydrocarbon contaminated solid wastes: field-based evidence from refinery soils and drilling mud pits</p> | <p>78 J. Avdalović, J. Milić, S. Miletić, M. Ilić, G. Dević, S. Spasić
Ex situ bioremediation of petroleum contaminated soil and its impact on humic acid formation</p> |
| <p>79 A. Chatzis, K. Kontogiannopoulos, A. Zouboulis, P. Kougias
Pressure and Trace Metal Optimization of Hydrogenotrophic Biomethanation Using Response Surface Methodology</p> | <p>80 N. Mohammed Zabermawi, E. Abd El-Hamid El-Bestawy
Optimization of Chlorpyrifos biodegradation and elimination from contaminated water/wastewater using specialized marine bacteria</p> |
| <p>81 E. El Bestawy, M. Mohamed Saleh Abbasy, M. Amin Abd El-Kawi, M. Aly Aly Sobhy
Upgrading the quality of secondary treated industrial wastewater discharged into Alexandria sanitary network using agro waste extracts</p> | <p>82 S. Chijioke Madu; P. Amaechi Ako (formerly Ozor), K. Okwuchukwu Agbo
Application of dielectric spectroscopy, morphological correlations and prototype fabrication of sustainable oyster shell and rice husk reinforced LDPE composites to high voltage insulation</p> |
| <p>83 V. Silva, G. Igreja, P. Poeta
Antibiotic Resistance in Sustainable Solid Waste Management Systems: Quantitative Evidence, Molecular Insights and Process-Level Control Strategies</p> | <p>84 I. Dias Perez, F. J. Navas-Martos, M. Dolores La Rubia
Biohydrogel 3D printing: a feasible circular economy strategy for eco-friendly cellulose obtention from olive waste and its application in various fields</p> |
| <p>85 N.F. Aljwiza, G. McKay, K.A. Mahmoud
Microplastics in Drinking Water Systems under Hot-Climate Conditions: Evidence, Risks, and Policy Implications</p> | <p>86 D. Calle-Cano, C. Hejeile, J.F. Saldarriaga
Predicting Biochar-Mediated Cadmium Immobilization in Agricultural Soils Using Explainable Machine Learning: A Circular Approach to Food Safety</p> |
| <p>87 E. Magi, M. Di Carro, L. Cutroneo, M. Capello, L. Gaggero, D. Bona, B. Benedetti
Emerging contaminants in Genoa harbour seawater: innovative monitoring approaches combining passive sampling and high-resolution mass spectrometry</p> | <p>88 D. López-Alvarado, G. Cuevas-Rodríguez
Effects of CEO₂ NPS on the efficiency and stability of biological wastewater treatment systems</p> |

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| <p>89 L.Calampa, B. Arias, A.M.F. Milagres
Plastic modification by <i>Bjerkandera adusta</i> in mono- and co-culture with <i>Gloeophyllum trabeum</i></p> | <p>90 D. Liakos, V. Tzika, E. Kalogianni, S. Bezergianni
Hydrothermal liquefaction of fish processing by-products towards biofuel intermediates</p> |
| <p>91 K. E. Ibarra-Munguia, S. AkizukiArodí, B. Martínez, G. Cuevas-Rodríguez
Recovery of by-products with added value from fermented trace wastewater and purple phototrophic bacteria</p> | <p>92 M.Zubrowska-Sudol, W.Borowska, J. Czajkowska, A. Dzido, B. Karolinczak, A. Knap-Baldyga, P. Krawczyk, P. Marczewski, G. Niewinski, K.Ramm, K.Sytek-Szmeichel, J.Walczak, O.Zajac
Concept of circular sewage and biowaste management for waterfront area</p> |
| <p>93 S.C. Madu, V.S. Aigbodion, P.A Ako (formerly Ozor)
Development of Flame-Retardant Fillers for Polymer Plastic Composite Materials: A State-of-the-Art Review</p> | <p>94 A.M. Merino-Lechuga, J. Benito, A. González-Caro, A.P. Galvín, A. Barbudo
Technical and environmental assessment of cement mortars incorporating recycled bottle glass powder as a supplementary cementitious material</p> |
| <p>95 A. Castillo, M. Lores, J. Domínguez
Integration of vermicomposting of wine by-products in vineyards for regenerative viticulture</p> | <p>96 N. Argirusis, G. Sourkouni, D. I. Liakos, E. Tsiligianni, A. A. Zorpas, S. Vakalis
Reactive and pH-Modified Hydrothermal Decomposition of F-Refrigerant Gases in a Pressurised Aqueous Parr Reactor</p> |
| <p>97 L. Bensmail, H. Benmehdi, M. Moullouad
Production d'énergie renouvelable et fourniture de compost par digestion anaérobie des déchets ménagers de la ville de Béchar</p> | <p>98 Á. A. Filipigh, B. Muñoz-Madariaga, S. Bolado
Fractional valorization of purple phototrophic bacteria biomass grown in urban wastewater: comparison with waste activated sludge</p> |
| <p>99 Y. K. Wedmark, D. M.M. Kleinegris
Quantifying Sustainability Trade-offs in Solar-Driven Biofuel Systems using Life Cycle Assessment</p> | <p>100 L. Vergine
Symbolic Encapsulation of ADM1 through EPR-MOGA for Sustainable and Interpretable Biogas Production Modeling</p> |
| <p>101 Shengnan Wang, Tingting Liu
Life Cycle Assessment of Footwear Production under Sustainable Design Scenarios</p> | <p>102 J.S.M.M.T. Nogueira, L.M. Carneiro, J.P.A. Silva, I.C. Roberto
Catalytic production of HMF from enzymatic hydrolysate of acid-pretreated rice straw</p> |
| <p>103 T.R. Oliveira, J.F.L. Silva, D. Noriler
Product yields of high-pressure non-catalytic pyrolysis of several biomass sources</p> | <p>104 A. Castillo, J. Domínguez, M. Lores
Assesment of the pesticide profile during vermicomposting of grape marc</p> |
| <p>105 K. Łoś, H. Kominko, K. Gorazda, Z. Wzorek
From Biowaste to Biochar-Based Fertilizers: Integrated Valorisation Pathway for Sustainable Agriculture</p> | <p>106 J. Aguilar, N. Briceño, A. López-Uceda, A. Barbudo, A. P. Galvín
Integrated Evaluation of Recycled Aggregates and Plastic Fibers in Low-Carbon Cement Reinforced Concrete: A Technical Feasibility Study</p> |
| <p>107 N. Briceño, J. Aguilar, A. P. Galvín, S. Sorlini, A. Shuja, A. López-Uceda
Evaluation of the Technical Feasibility of Recycled Aggregates Derived from CDW for Use in Sustainable Reinforced Concrete</p> | <p>108 K. Sawskaab, H. Kominkoac, B. Tarkoa, K. Gorazdaac, Z. Wzorek
From Waste to Fertilizer: Phosphorus Organo-Mineral Products Derived from Digestate and Ashes</p> |

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| <p>109 A.I. Ignat, A.C. Savin, L. Andronic
Geochemical characterization and spatial variability of urban soils under anthropogenic pressure as a baseline for nature-based solutions</p> | <p>110 K. Umiejewska, M. Malarski, K. Misztal-Kruk, M. Żubrowska -Sudoł
Analysis of the effectiveness of greywater treatment in the coagulation process</p> |
| <p>111 A.I. Ignat, I. Tismanar, L. Andronic
Advancing climate resilience through nature-based solutions within the water circular economy</p> | <p>112 C. Pastore, V. La Parola, R. Comparelli, M. Pellegrino, L. di Bitonto, L. F. Liotta
Rare-earth metal oxides nano-dispersed onto ligno-humic-like support derived from sewage sludge for wastewater treatment</p> |
| <p>113 P.J. Inocencio García, M. Rahaman
Circular carbon and plastic waste valorization via photoelectrochemical H₂ production and CO₂ conversion</p> | <p>114 G. Nelios, Y. Kourkoutas
Valorization of Agro-Industrial By-Products and Food Waste for Sustainable Biomass and Functional Ingredient Production</p> |
| <p>115 A. Lete, R. Cardona, Á. Millera, I. Fonts, G. Gea
Evaluation of olive pit biochar as a sustainable adsorbent for ammonia emissions</p> | <p>116 L.D. Gámez, F. Salcedo, Y.D. Hernandez-Charpak, P. Ortiz
Case study of alternatives for closing the cycle of food delivery service within the circular economy in Bogotá</p> |
| <p>117 Shon Shiju, P. Quille, N. O'Leary, B. K. Thiwari, G. Rajauria
Transforming Dairy Processing Sludge and their Digestate via Ultrasound-Assisted Humic Substances Extraction: A Sustainable Resource Recovery Study</p> | <p>118 N.J. Clerici, R.S. Silva, D.T. Ferreira, J.C. Santos, S.S. Silva
Covalent Coupling-Driven Structural and Thermal Engineering of CuO Nanobiocatalysts for Sustainable Lignocellulosic Waste Valorization</p> |
| <p>119 P. Wojnarová, M.F. Edelmannová
Comparison of photocatalytic and hydrolytic pre-treatment of paper-industry lignocellulosic residues to enhance methane yield during anaerobic digestion</p> | <p>120 A. Rybak, J. Hunicz, M.S. Gęca, L. Yang
Wind Turbine Blade Pyrolysis Oil as a Fuel Blending Component: Combustion Behavior and Emission Characteristics in Common-Rail Diesel Engine</p> |
| <p>121 D. Meneguzzi, F. M. Jofre, J. C. Santos, M. A. A. Cunha, L. D. Sette, A. Pessoa-Junior, M. G. A. Felipe
Sustainable management of sugar-energy sector: Antarctic yeasts for the production of pigments</p> | <p>122 J. Hunicz, H. Kuszewski, A. Jaworski, D. Szpica, P. Woś, M.S. Gęca, A. Rybak
Energy recovery from waste polymers via pyrolysis fuels: emission assessment in diesel engine operation</p> |
| <p>123 El-Or Sharoni, M. Pilosof, F. Nakonechny, O. Semenova, M. Einat, M. Nisnevitch
Fast biodiesel production</p> | <p>124 R. Hrichi, R. Touati, A. Kessraoui
Microwave-Assisted Synthesis of Al³⁺ -Modified Posidonia Oceanica Fibers for Sustainable Methyl Orange Removal</p> |
| <p>125 D. Asarkaya, S. Özgen, N. Kizak
A Multi-Stream Circular Recovery Framework for High-Purity Photovoltaic Material Upcycling</p> | <p>126 M. Pástor
Energetic valorization of branch dendromass from sweet chestnut (Castanea sativa)</p> |

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- 127 N. Tsiarta, C.G. Samanides, A. Tsiampartas, A. Orthodoxou, C. Evangelou, C. Christoforou, D. Taliotis, I. Ioannou, C.K. Christodoulou, D. Lazarou, T. Apostolou, E. Kyriakou, I. Voukkali, A.A. Zorpas, M. Stylianou
From Biowaste to Agroecological Value: Lighthouse Demonstrations of Circular Practices in the Famagusta–Larnaka Living Lab (Cyprus)
- 129 C. Gracia-Monforte, A. Lete, F. Maldonado-Martín, G. Gea
Gasification of Waste Mattresses for Syngas Production: Impact of Different Gasifying Agents (CO₂, Air, and Steam-Oxygen)
- 131 R.M. Pop, V.S. Chedea, I.C. Bocsan, A.D. Buzoianu
Valorization of White Grape Pomace Waste: Effects of a Polyphenol-Rich Extract on Oxidative Stress and Lipid Profile in Diet-Induced Dyslipidemic Rats
- 133 V. Lolou, N. Markakis, E. Maragkaki, G. Grammatikakis, A. Maragkaki, L. Lombardi, R. Muñoz, K. Karakitsou, T. Lolos, T. Manios, C. Tsompanidis
Developing and Installing the LIFE-W2B Facility
- 135 K. Obileke, S. Mamphweli, E. Meyer, G. Makaka, N. Nwokolo
Development of a mathematical model and validation for methane production using cow dung as substrate in an underground biogas digester
- 137 F. Makamure, P. Mukumba
Development and validation of a multiple linear regression model to predict the volume of biogas produced in a temperature-controlled biodigester
- 139 A. Brunat, R. Cervelo, D. Faulón, S. Astals, S. Dosta, J. Vila, J. Dosta
Acidogenic co-fermentation of Waste Activated Sludge and Glycerol at different pH control conditions to tune the volatile fatty acids (VFAs) profile
- 141 N. Mohammed Zabermawi, F. Abdullah Alshehri, E. Abd El-Hamid El-Bestawy
Bioremediation of industrial phenol-contaminated wastewater using bacterial biofilter
- 128 A. Katrini, A. Maragkaki, C. Bouki, E. Viskadouraki, N. Markakis, T. Manios, A. ElRawy, I. Iakovides, P. Micheal, O. Almashaqbeh, H. Assi, W. Al-Dwairi, A. Ayol, O. Artan, L. Lombardi
Pyrolysis of Dried Sewage Sludge for the Production of Energy and Biochar, as a Multifactor Process for Energy Efficiency and Reduction of Gas Emissions – Sludge2Energy
- 130 V.S. Chedea, R.M. Pop, M. Comşa, D.M. Popescu
From Winery Waste to Bioactive Resources: Circular Economy Valorisation of Grape Pomace from Transylvanian Vineyards (Romania)
- 132 M. Omirou, K. Philippou, K. Kaikiti, P. Pissaridou, J. Rhodosthenous, C. Hadjimichael, M. Stylianou, G. Hadjipavlou, D. Sparaggis
Innovative Waste Management Practices for Reducing Emissions from Livestock Production
- 134 J.M. Romero-García, M.C. García Vargas, I. Gómez-Cruz, M. M. Contreras, E. Castro
Dark fermentation biohydrogen from olive tree pruning: mitigation of inhibitors and perspectives for LCA-TEA in the Mediterranean
- 136 L. Lombardi, C. Boccia, A. Maragkaki, E. Maragkaki, G. Daskalakis, T. Kamperidis, R. Muñoz, A. Lazari, S. Saxioni, K. Karakitsou, T. Lolos, C. Tsompanidis, T. Manios
Assessing the Environmental and Social Sustainability of Innovative Waste-to-Biomethane Pathways: The LIFE-W2B Project Approach
- 138 M. Azevedo, J. Ortigueira, B. Peixoto, P. Lima, R. Leite, H. Monteiro
Supporting the Development of Medium-Voltage Switchgear with Life Cycle Assessment and Circular Analysis: A Comparative Study of SF₆ and Synthetic Air Technologies
- 140 D. T. Burke, G. Rajauria, A. Priyadarshini
Mapping Macro-environmental drivers and barriers to biowaste valorisation from dairy processing wastewater treatment facilities in Europe
- 142 M. Solomon Chijioke, P. Amaechi Ako, Kenelumchukwu Dimelu
Synergistic improvement in hydrophobicity, flame retardancy and thermal stability of low-density polyethylene composites reinforced with oyster shell and rice husk

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| <p>143 L. Fatima, N. Tahir Sharif, S. Ayesha Zaidi, Umm-E- Kalsoom, A.-S. Nizami
Circular Waste Management in Synthetic Fibre Recycling for Textile Industry</p> | <p>144 G. Pachakis, D. Malamis, S. Mai, E.M. Barampouti
Life Cycle Assessment of Centralized vs. Decentralized Refuse-Derived Fuel Management: Transport Emissions and Plant Siting Optimization in Greece</p> |
| <p>145 A. Razaq, A. S. Nizami
Performance Evaluation of Bio-Waste Derived Briquettes as Clean Alternatives to Coal and LPG</p> | <p>146 G. Pachakis, S. Mai, E.M. Barampouti, D. Malamis
Process Simulation and Design Optimization of Potassium Carbonate-Based CO₂ Capture for Industrial Flue Gas Applications</p> |
| <p>147 A. Ravikumar, A. Rajendrakumar Prajapati, En-Yu Fan, Pei-Cheng Wang, David Whittinghill, G. Pappas, P. Kariou, A. Antoniou, E. Kyriakou, A. A. Zorpas
The Impact of Serious Game Development on Circular Economy for Construction and Demolition Wastes</p> | <p>148 M. Azevedo, J. Ortigueira, S. Luciani, María M. Micó, D. Hiniesto, R. Castellanos, F. Verdugo, D. Hidalgo, M. Victoria Martinez-Lorenzo, H. Monteiro
Upcycling Cellulosic Waste Streams into Construction Materials – Life cycle assessment under ICARUS project</p> |
| <p>149 E. Zago, Th. S. Castão, J. L. Ramos, E. N. V. M. Carrilho
Mitigating Emerging Contaminants: Lettuce Root-Based Magnetic Nanocomposites for residual antihypertensive removal in water</p> | <p>150 P. Amaechi Ako (formerly Ozor)
Technical specifications for value-added production planning and control of plastic recycling in South Africa</p> |
| <p>151 Y. Yang, J.L. Hao, J.F. Yuan, B.W. Xu
Government Subsidy Effectiveness in Platform-Based Construction Waste Transaction Governance: An ISM-Based Mechanism Model</p> | <p>152 S. L. Parra-Angarita, J. F. Herrera-Ruiz, G. H. Gaviria, A. Léonard
Towards Standardized Mechanical Characterization of Highly Dewatered Sludge: a bibliometric study</p> |
| <p>153 O. Barouta, N. Tsiarta, C.G. Samanides, P. Dalias, A. Christou, M. Omiro, A. Zorpas, M. Stylianou
Decision support tools in agriculture and agroecology: A review</p> | <p>154 C. Papachrysostomou, N. Tsiarta, C.G. Samanides, M. Omiro, M. Constantinou, A. Zorpas, M. Stylianou
Removal of Coccidiostats from aqueous solutions using biochar</p> |
| <p>155 M. Kourri, N. Tsiarta, C. Samanides, E. Kyriakou, I. Voukkali, A.Zorpas, M. Stylianou
Exploring the role of communication in the adoption of circular economy practices in Cyprus: Stakeholder perspectives</p> | <p>156 C. Samanides, M. Matheou, Maria Georgiou, N. Tsiarta, I. Voukkali, A. Agapiou, A. Zorpas, M. Stylianou
Investigating the use of biochar for nitrate and ammonium removal from aqueous solutions</p> |
| <p>157 M.T. Santos, T.C. Mesquita, T. Trindade
Analysis and perspectives on home and community composting in Portugal</p> | <p>158 M.C. García Vargas, J.M. Romero-García, I. Gómez-Cruz, M. M. Contreras, E. Castro
Circular Intelligence Applied to Lignocellulosic Biomass Management</p> |
| <p>159 S. Shahhosseini, F. Demichelis, M. Piumetti, C. Gallati, D. Fino
From wastewater treatment to catalysis: adsorption-based recovery and reuse of heavy metals</p> | <p>160 E. Maragkaki, F. Galliou, A. Papadaki, C. Bouki, E. Viskadouraki, S. Dokianakis, M. Dragasaki, I. Daliakopoulos, G. Markakis, N. Katsarakis, N. Vidakis, T. Manios
Performance, Operational Optimization and Technical Evaluation of the HIPPOCRATES Demonstration Unit under Real Operating Conditions</p> |

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| <p>161 P.R. Nascimento, B.R. Padula, A.M.F. Milagres
Comparative enzymatic hydrolysis of Brazil nut cake (<i>Bertholletia excelsa</i>) using two proteolytic enzymes for bioactive selenopeptide production</p> | <p>162 E.M. Rodríguez-Acosta, F. Plascencia-Hernández, B.C. Alcántar-Vázquez
CO₂ capture using sodium silicates prepared from geothermal silica waste</p> |
| <p>163 H.D. Vera-Martínez, B. Alcántar-Vázquez
CO₂ capture using sodium silicates prepared with construction and demolition waste</p> | <p>164 R. Linares-Burgos, A. López-Uceda, A. P. Galvín, C. Martínez-Ruedas
Comparative analysis of two olive grove production systems using Life Cycle Assessment</p> |
| <p>165 W. Zia, A. S. Nizami
Developing Smart Waste Management by Integrating Machine Learning in Urban Waste Management</p> | <p>166 K. Sobieraj, A. Urbanek, Z. Steczkiewicz, T. Strzała
Bacterial carbon monoxide (CO) cycling via the CODH/ACS complex in compost: insights from metagenomic and gene expression analyses</p> |
| <p>167 C. García-González, B. Alcántar-Vázquez
Porous carbon materials derived from spent coffee grounds with potential application in CO₂ capture</p> | <p>168 S. Schab, K. Borowik, A. Bińczak, M. Woźniak, Ł. Rusek, P. Firan
Sustainable granulation of limestone fertilizers using molasses-vinasse binder mixtures: a circular economy approach</p> |
| <p>169 K. Borowik, S. Schab, P. Rusek
Technology for manufacturing granular mineral fertilizers with a bioactive polymer coating containing lyophilized spore-forming bacteria</p> | <p>170 A. Shobajo, V. Chubur, C. Yelizaveta, S. Hammond, P. Michal, F. Mercl, T. Altyn, H. Roubík
Phosphogypsum Valorisation Enhances Seedling Vigor and Digestate Nutrient Enrichment in Anaerobic Digestion of Lignocellulosic Biomass</p> |
| <p>171 S. Schab, K. Borowik, M. Woźniak, P. Firan
Pelletizing of digestate-based mineral-organic fertilizers: effect of die L/D ratio and utilization of frictional heat</p> | <p>172 C. Dias-ferreira, J. Trindade
Mapping separate food waste collection in Portugal: Implementation and incentive mechanisms post-WFD amendment</p> |
| <p>173 J. Ortigueira, M. Azevedo, M. Paulo, J. Bernardo, S. Salavisa, H. Monteiro
Life Cycle Assessment of Extract Production from Cannabis sativa Inflorescences: A Preliminary Study</p> | <p>174 M. Theodorakopoulou, G. Daskalakis, C. Moschou, C. Bouki, G. Grammatikakis, G. Grammatikakis, G. Christoforakis, I. Daliakopoulos
LIFE-INOFEED: Design Optimization and Pilot Scale Construction of Upgraded Decentralized Bio-Waste Drying Units</p> |
| <p>175 G. Fuks, R. Pomykała
Fly ash valorisation in geopolymer synthesis: effect of activator composition and curing conditions on mechanical performance</p> | <p>176 C. Koutsiantzi, A. Chatzis, E. Lamprinidou, E. Peleka, A. Zouboulis
Membrane Gas Separation for Post-Combustion CO₂ Capture and Utilization in Hybrid Energy Systems</p> |
| <p>177 A. Tsoumanis, C. Stergiopoulos, N. Tricha, S. Loukoutou, S. Papadaki, M. Krokida
Integrated Environmental, Economic and Stability Assessment of Phytobiotic-Enriched Aquafeeds for Sustainable Food Industry Decision-Making</p> | <p>178 I. Pitterou, K. Kakokefalou, A. Tzani, E.M. Barampouti, S. Mai, D. Malamis, K. Moustakas, A. Detsi
Development and Optimization of Biodegradable Chitosan Beads Encapsulating Olive Stone Wooden Residues Ash for Application as Controlled Release Fertilisers</p> |

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| <p>179 Th. Lympelopoulou, Er. Kopsachili, M.-A. Karadendrou, N. Kyritsis, A. Tzani, A. Detsi
Development and optimization of a process for extraction of bioactive molecules from cherry stem</p> | <p>180 J. Ortigueira, M. Azevedo, M. Paulo, J. Bernardo, S. Salavisa, H. Monteiro
Life Cycle Assessment of Extract Production from Cannabis sativa Inflorescences: A Preliminary Study</p> |
| <p>181 Ed. P. B. Alves, A. P. S. Silva, E. N. V. M. Carrilho
Sustainable Bacterial Inactivation in Agrochemical Industrial Wastewater Using Magnetic Nanoparticles</p> | <p>182 K. Borowik, S. Schab, A. Bińczak
Odour mitigation in digestate-based biofertilizers by functional additives: ammonia capture with biochar, zeolite and ammonium sulphate</p> |
| <p>183 M. Mahboob, M. Zain, A. S. Nizami
Producing Zinc Coated Enriched Biofertilizer from Bio-digestate</p> | <p>184 R. Lopez, M.J. San José, S. Alvarez
Removal of analgesic pharmaceutical by adsorption onto biocarbon</p> |
| <p>185 C. Partheni, K.M. Kakokefalou, E.M. Barampouti, S. Mai, D. Malamis, K. Moustakas
Validation of Biochar as a Soil-Amending Substrate</p> | <p>186 J. Walczak, W. Borowska, K. Misztal-Kruk, M. Zubrowska-Sudol
Biological Treatment of Greywater for Organic Matter Removal and Water Recovery</p> |
| <p>187 E. Kyriakou, I. Voukkali, M. Stylianou, J. Navvaro Pedreno, A. A. Zorpas
The New Bio economy strategy. A starting point for the future</p> | <p>188 R. L. Aguiar, M Ghoraiishi
Sustainable 6G by Design: considerations for new systems</p> |

08.00-9.30

Registration

SOCRATES ROOM

9.15-10.45

Keynote Speakers

Chair: K. Moustakas, D. Malamis

Paschalis Alexandridis, University at Buffalo, The State University of New York (SUNY)

Textile Recycling: Advances in Sortation and Chemical Recycling

Maria Georgiadou, EC Directorate General for Research and Innovation

EU support on SAF technologies and policies

Konstantinos Tsimaras, Regulatory authority for energy, waste & water

The role of RAAEY to the water scarcity and the management of irrigation water

Steven De Meester, Gent University

Can Recycling Deliver Integrating Mechanical Physical, and Chemical Recycling Pathways to Meet Plastic Recycled Content Targets

Jesper de Claville Christiansen, Aalborg University

Mechanical recycling of thermoplastics

10.45 - 11.15 ☕ **Coffee Break**

**IALYSSOS
ROOM**

SESSION IX

LIFE DIMITRA project & Anaerobic Digestion I
Chair: I. Angelidaki, D. Malamis, S. Campanaro, L. Treu



11.15-11.30	D. Malamis, S. Mai, E. Barampouti, K. Moustakas LIFE22-CCM-EL-DIMITRA: Valorising anaerobic digestates into bio-fertilisers for climate friendly agriculture & the Greek Demo Case
11.30-11.45	F. Rizzioli, T. Della Gatta, D. Bolzonella, F. Battista Integrated Pretreatments and Membrane Processes for Digestate Upgrading: A Multiscale Study Reaching TRL 7
11.45-12.00	K. Borowik, S. Schab Development of organic fertilizer formulations using separated digestate fractions, based on the example of the LIFFE-DIMITRA project
12.00-12.15	G. Campo, A. Cerutti, A. Sharifi, B. Ruffino, M. Zanetti Mass and Energy-Based Assessment of In Situ Hydrogen Biomethanation for Power-to-Methane Integration in Anaerobic Digesters
12.15-12.30	M. De Sanctis, S. Leopizzi, P. Vergine, C. Di Iaconi, A. Langella, A. Bellino, G. De Feo, F. De Nicola, F. Izzo, M. Mercurio, M. Napoletano, S. Oppido, E. Picariello, C. Romano, F. Trasacco, D. Baldantoni Enhanced anaerobic digestion by thermochemical pre-treatment for marine waste valorisation
12.30-12.45	I. A. Fotidis, Yixin Yan, Dafang Fu, D. S. Pitsikoglou, M.-A. Tsitsimpikou, A. A. Lithourgidis, C. A. Tzenos, Th. A. Kotsopoulos Bioaugmentation with advanced inocula under simultaneous high lignocellulosic concentration and ammonia stress in a continuous stirred tank reactor
12.45-13.00	A. G. Capodaglio, B. Fomekong Kana, S. Ghezzi, A. Callegari, M. Tucci, F. Aulenta, C. Cruz Viggi Anaerobic sludge digestion enhancement with bioelectrochemical methanogenesis augmentation: experimental outcomes
13.00-13.15	U.K. Roy, T. Radu Valorising phytoremediation plant biomass through anaerobic digestion
13.15-13.30	M. Olaya-Rincon, F. Papaioannou, J. Dosta, M. Martinez, S. Astals Anaerobic co-digestion of bioplastics and food waste

13.30-13.45	O.D. Yepez-Ceron, J. Browne, E. Casey, R. K. Dereli Performance and energy recovery potential of anaerobic digestion of dairy UF permeate
13.45-14.00	X. Zhan Integrating Anaerobic Digestion into Sustainable Livestock Farming: Environmental and Economic Considerations
14.00-14.15	S. Sahota, C. Geoghegan, C. O' Donoghue Economic Multipliers and Sectoral Linkages in Anaerobic Digestion Systems: An Input–Output Analysis within an Economic and Environmental Framework
14.15-15.00	Lunch Break

**ASCLIPIOS
ROOM**

SESSION X

Scaling-up advanced biodegradable and recyclable polymers for sustainable packaging materials

Chair: A. Žgajnar Gotvajn, S. De Meester, S. Mai

11.15-11.30	C. Bearzotti, L. Du Preez, L. Tirkkonen-Rajasalo, I. Yarulina Design for Recycling Criteria for Bioplastics Packaging: Addressing PPWR Requirements
11.30-11.45	P. Lomwongsopon, C. Varrone Process engineering of polyhydroxyalkanoates production from polyolefins pyrolysis wax
11.45-12.00	G. Lathira, E. Xanthopoulou, N.D. Bikiaris, Z. Terzopoulou GRECO project: Novel Bio-based, Biodegradable, Recyclable, Safe and Circular Food Packaging
12.00-12.15	A. Demeslis Valorisation of Olive Oil Solid Waste into Bio-Based Single-Portion Packaging: The E-OILÉ Project
12.15-12.30	J. Pieters, C. Bearzotti How is the legislative framework for biodegradable plastic packaging changing, and how can R&I cope with the changes?

12.30-12.45	T. Kosanovic Milickovic, E. Gkartzou, M. Karmitru, C. Podara, C.A. Charitidis Designing Biodegradable Packaging Materials with Integrated End-of-Life Performance for Circular Waste Management – BioPackMan project
12.45-13.00	T. De Somer, S. Ügdüler, D. Manhaeghe, L. Harinck, K. M. Van Geem, A. Kulawig, R. Leineweber, S. De Meester Controlling colorant staining during the de-inking of flexible plastic packaging
13.00-13.15	G. Cabrera, A. Barros, J. Brunet Laboratory and Pilot-Scale Supercritical CO ₂ Decontamination of PLA: Efficiency and Material Performance
13.15-13.30	L. A. Castillo-Cifuentes, M. F. Valero, L. E. Díaz, P. Acevedo, L. D. Barajas Gomez, I. Cabeza Upcycling Potato Processing Solid Waste into Starch Biofilms with Tunable Mechanical Properties via Multifactorial Optimization
13.30-13.45	N. Vermeeren, D. Manhaeghe, L. Van Schelvergem, T. De Somer, S. De Meester Understanding ink adhesion and de-inking of flexible plastic packaging
13.45-14.00	L. Van Schelvergem, D. Manhaeghe, T. De Somer, N. Vermeeren, S. De Meester Development and application of a new challenge test for polyolefin packaging recycling
14.00-14.15	A. Torkelis, G. Denafas, J. Dvarionienė, V. Varžinskas Closing the Recycling Gap in Lithuania's Plastic Packaging System: Material Flow Analysis of Post-Consumer Plastic and Composite Packaging Waste
14.15-14.30	N. Nowak, D. Manhaeghe, S. de Meester Degradation of polyurethane ink binders during recycling of flexible polyolefin packaging

**SOCRATES
ROOM**

SESSION XI

**AgriLoop EU/China session: integrated approach
to safely convert agri-residues into proteins,
biodegradable plastic and others biochemicals**
Chair: A. Milukas, N. Gontard, D. Bolzonella, M. Reis



11.15-11.35	N. Gontard, Aimin Shi Overall introduction of the AgriLoop EU-CN project, Circular reasoning for agricultural residues: Pushing the frontier of circular agriculture by converting residues into novel economic, social & environmental opportunities
11.35-11.55	J. Broeze, M. Rodriguez-Illera, J. Voogt Rapid decision support for the valorization of agri-food residues through early estimates on yield and environmental benefit
11.55-12.15	M. Reis, R. Ganigué, Wei Gao How to tailor the bioconversion cycles of agricultural residues into microbial protein and biopolyesters
12.15-12.35	D. Bolzonella, Xiaolong Yao Pilot scale technologies for agri-waste conversion into bioproducts for the farming sector
12.35-12.55	Cr. A. V. Torres, F. Santos, F. Traina, J. Viana, J. C. Fradinho, M. Matos, S. Vandenberghe, Á. Estévez, R. Ganigué, M. Reis Turning Agro-Industrial Residues into Bioplastics: Unlocking Microbial PHA Production with Single-strain and Mixed Cultures
12.55-13.15	L. Di Leva, Lionel Nguemna Tayou, G. Salvatori, Ch. Cavaliere, A. Martinelli, Cl. Palocci, Á. Estévez, R. Ganigué, M. Villano Bioconversion of Agro-residues wastes into Biopolymers through a continuous multi-reactor process using mixed microbial cultures
13.15-13.35	G. Pesante, Cl. Magonara, Al. Zucca, El. Montagnese, D. Bertasini, G. Salvatori, L. Nguemna Tayou, L. Di Leva, M. Villano, D. Bolzonella PHBV production with tailored HV content from agri-food residues using mixed microbial cultures
13.35-13.55	J. Housmans, Yingying Gu, M. Struk, M. Rodríguez-Illera, A. Penedo, I. Leis Garrote, G. Benati, R. Escorcio, A. Sadeghi-Sheshdeh, P. Sauvetes Young researchers in Europe and China: Overview of different academic research systems
13.55-14.15	Overall discussion with all speakers & participants

**DELPHI
ROOM**

**SESSION XII
PART A**

**The EIC Accelerator
Chair: K. Moustakas, E.M. Barampouti, P. Gkotsis**

11.15-12.15

Petros Gkotsis, European Innovation Council
The EIC Accelerator. Support innovative ideas to reach the market

**DELPHI
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**SESSION XII
PART B**

**LIFE 2026 Info Day (in the Greek language)
Chair: G. Protopapas, D. Banousis, N. Psimmenos**



12:15-12:20

Connection - Registrations

12:20-12:25

Ioannis Androulakis, President of the Green Fund
Greetings

12:25-12:40

George Protopapas, LIFE National Contact Point for the Environment,
Director of the Green Fund
Trends in the Environmental Field, the European LIFE Programme and the role of the
Greek LIFE Task Force plus

12:40-12:50

Marilena Papastavrou, LIFE National Contact Point for Nature and Biodiversity,
Environmental department
The European LIFE Programme and evaluation of Cypriot participation

12:50-13:35

Dimitris Banousis, Environmental Expert, Greek LIFE Task Force plus, Green Fund
Presentation of the Circular Economy and Quality of Life sub-programme
Marilena Papastavrou, LIFE National Contact Point for Nature and Biodiversity,
Environmental department
Presentation of the Nature and Biodiversity sub-programme
Nikos Psimmenos, Climate Action Expert, Greek LIFE Task Force plus, Green Fund
Presentation of the Climate Change Mitigation and Adaptation sub-programme

13:35-13:50	Vivian Doriza, Project Advisor LIFE Climate & Energy Unit, CINEA Eleftherios Bourdakis, Project Advisor LIFE Climate & Energy Unit, CINEA Presentation of the Clean Energy Transition sub-programme & Tips for writing a successful proposal
13:50-13:55	Questions and Answers
13:55-14:05	A. Apostoliotis Introduction to LIFE project: The case of LIFE - CET - LOCATEE (LIFE23-CET-LOCATEE/101167621)
14:05-14:15	D. Petza Introduction to LIFE project: The case of LIFE MareNatura (LIFE22-NAT-EL-MareNatura/101113792)
14:15-14:25	El. Giouni, M. Kyriazi, K. Moustakas, M. Loizidou Introduction to project LIFE: The case of LIFE PHARMADETOX (LIFE20ENV/CY/000615)
14:25-14:35	D. Malamis, S. Mai, E. Barampouti, K. Moustakas Introduction to project LIFE: The case of LIFE DIMITRA (LIFE22-CCM-EL-DIMITRA/101113253)
14:35-14:45	K. Stylogianni Introduction to LIFE project: The case of LIFE SIP GRBlue (LIFE24-IPE-EL-LIFE SIP GR Blue)
14:45-14:55	V. Lolou, C. Tsompanidis, G. Litas, K. Katrini, N. Markakis, A. Stefanakis, J. Claeys, i. Grammatikakis, G. Daskalakis, I. Daliakopoulos, T. Manios Environmental Permitting and System Integration of Decentralized AOSDU Units with a Central Processing Facility: The LIFE-INOFEED Approach
14:55-15:00	M. C. Liscio, S. Ahmed, P. Sospiro The LIFE2M Project

**IALYSSOS
ROOM**

Anaerobic Digestion II
Chair: D. Fino, J. Dosta, P. G. Kougias

SESSION XIII

15.00-15.15	C. Castoldi, F. Demichelis, T. Tommasi, D. Fino Optimizing Dark Fermentation of Olive Mill Wastewater via Inoculum Pretreatments, Selection of Inert Gas, and Control of Process Parameters
15.15-15.30	B. Öden, R. Kunayeva, A.M. Altigani, G.H. Akçay, E. Kartopu, E. Bat, B. Mavis, Y.D. Yilmazel Impact of Flocked Electrode on the Performance of Anaerobic Digestion – Microbial Electrolysis Cell Integrated Systems (AD-MECs)
15.30-15.45	D. S. Pitsikoglou, M.-A. Tsitsimpikou, A. A. Lithourgidis, C. A. Tzenos, Yixin Yan, Dafang Fu, T. A. Kotsopoulos, I. A. Fotidis Development and preservation of composite microbial consortia for enhanced anaerobic digestion under ammonia and lignocellulose inhibition
15.45-16.00	A. Tamer Cetinkaya, G. Ozyildiz, N. Dilsizoglu-Akyol, F. Hazi, E. Cokgor G. Insel Integrated Biochemical Methane Potential and Plant-Wide Simulations for Full-Scale High-Rate Activated Sludge Systems
16.00-16.15	H. Abdullah, G. McKay, S. Shaikh Methane Recovery Potential of Differentiated Dairy By-Products and Wastewater Streams: A Comparative Assessment for Waste-to-Energy Valorisation
16.15-16.30	M. Hernandez, A. Lingaraj, J. Jonis, J. Teaford Beneficial Reuse of Milled Steel Slag Fines in Biosolids and Biogas Management: An Evaluation of Novel Nutrient Recovery and Dewatering Pathways
16.30-16.45	M. T. Santos, P. Cunha, T. Trindade Contribution to biogas production in the anaerobic digestion process through numerical model predictions
16.45-17.00	A. Conversano, D. Sogni, A. Campana, D. Di Bona Food Waste-to-Biomethane and Hydrochar: Integrated Anaerobic Digestion and Hydrothermal Carbonization for Intensive Material Recovery

17.00-17.15	E. Arcos, P. Gerin H ₂ /CO ₂ -driven conversion of orange peel waste into medium-chain carboxylates through enhanced anaerobic fermentation
17.15-17.30	Feng Zhao, Dandan Wang, Bin Mu, Aiqin Wang Structural evolution and structural-activity relationship of oil-shale semi-coke
17.30-17.45	Yongfeng Zhu, Liu Yan, Bin Mu, Yali Yu, Aiqin Wang Preparation of Functional Superabsorbent Polymers Using Coal Gasification Slag and the Enhancement of Their Properties
17.45-18.00	J. Gracia, P. Acevedo A Life Cycle Perspective on PHB Synthesis Using Mixed Sludge Cultures
18.00-18.15	Y. Kaushik, Pr. Arora Life Cycle Assessment of Lantana–Plastic Cogasification for Sustainable Energy Generation
18.15-18.30	W. Monteiro Ambrós, G.H. Pires Assessment of the Sulphur Recovery Potential from Coal Tailings in the Criciúma Coal Basin, Southern Brazil
18.30-18.45	J. Saleem, Z. K. Baig Moghal, F. Tahir, G. McKay Performance–Sustainability Trade-Offs in Alkali-Activated Biomass-Derived Activated Carbon
18.45-19.00	H. Bibi, M. Jucienė, V. Dobilaitė Sustainable use of textile waste in the construction sector: a review of researches and current practices

**ASCLIPIOS
ROOM**

Circular Economy & Symbiosis

Chair: U. Yetis, L. Rigamonti, F. Corona, M.C. Liscio

SESSION XIV

15.00-15.15	V. Vorne, A. Reinikainen, K. Kuligowski, I. Konkol, L. Świerczek, M.L. Christensen, G. Messina, J. Zviedris, J. Dvarioniene Advancing water resilience in coastal tourism: Context-based circular solutions for small-scale wastewater treatment systems
15.15-15.30	D. Leone, Ev. Marra, L. Del Bosco, A. Fontana A Modular Framework for Life Cycle Sustainability Assessment of Industrial Urban Symbiosis Systems
15.30-15.45	A. Kerschbaum, S. Bastek, S. Fendt, H. Spliethoff Spatially resolved technical carbon potential from biogenic industrial wastes for green methanol production in Germany
15.45-16.00	M.P. Reyes, J.E. López, J.F. Saldarriaga Screening amendment performance for diffuse metal immobilization and soil quality recovery in micro-plots with Lolium perenne
16.00-16.15	F. Corona, F. Berride, J. Martín-Marroquín, R. Timmers, F. Burgoa, D. Hidalgo Experimental evaluation of forward osmosis at laboratory pilot scale for industrial wastewater desalination and water recovery
16.15-16.30	A. Brunat, A. Serra-Toro, D. Faulón, S. Astals, S. Dosta, J. Dosta Combined treatment of a gas-permeable membrane contactor and an anaerobic membrane bioreactor for the valorisation of a high-strength industrial wastewater
16.30-16.45	V. Innocenzi, M. Prisciandaro Carbon dioxide valorization through Astaxanthin Production from Haematococcus pluvialis: Modeling and Process Analysis in Aspen Plus®
16.45-17.00	M. C. Ormeci Kart, M. Mesken, H. E. Salali Technical and Economic Efficiency of Olive Farms: A Comparative Analysis Using BCC and Slack-Based DEA Models
17.00-17.15	M.C. Liscio, G. Monturano, F. Perugini, P. Sospiro The impact of sustainable certification on firm environmental and economic performance

17.15-17.30	B. Iñarra, J. Ibarruri, D. San Martín, M. Gutierrez, S. Cioffi, A. Adamiano, C. Bald Use of fisheries by-products for high value agronomic purposes
17.30-17.45	V. Giannini, D. Iacobucci, M. C. Liscio, M. Orci, P. Sospiro Blockchain Adoption for Fashion Supply Chain Traceability and Circularity
17.45-18.00	O.M. Melo Neto, L.F.L. Lucena, D.R.C. Silva, J.V. Neto, L.P.T. Mendes, L.C.F.L. Lucena A Computational Framework for the Assessment of Circularity Factors in Recycled Asphalt Mixtures
18.00-18.15	D. San Martin, J. Ibarruri, M. Gutierrez, I. Beristain, B. Iñarra Valorisation of Spent Coffee Grounds into Animal Feed and Biocides
18.15-18.30	J.N. Sierra Cárdenas, E. Trigueros Andrés, I. Díaz Villalobos, S. Bolado Rodríguez Protein Recovery from Raw Waste Activated Sludge: Optimization of Alkaline Hydrolysis under a Circular Economy Approach
18.30-18.45	T. Kgoedi, A. Aphane, M. Sihlahla, N. Mketo Synthesis of a multifunctional $\text{Fe}_3\text{O}_4@\text{SiO}_2@\text{MOF}@\text{cellulose}$ nanocomposite material from waste-derived precursors for the adsorptive recovery of rare earth elements in mining waste: A circular economy strategy
18.45-19.00	H. Himanshu, N. Ley, C. Wolf, M. Bongards Metabolon as a Collaborative Living Lab for Nature-Based Solutions: Governance Conditions, Societal Engagement, and a Replication Framework for Post-Industrial Circular Economy Transitions

**SOCRATES
ROOM**

Recycling & Resources Recovery
Chair: P. Morone, K. Moustakas, P. Nowakowski, I. Fotidis

SESSION XV

15.00-15.15	M. Tokas, A. Dollari, S.K. Antiohos "Nothing to Waste": A recycling business initiative for the community
15.15-15.30	P. Nowakowski, M. Wala Investigating efficiency in collection and transportation of waste textiles – a case study of Poland
15.30-15.45	M. Stefanidou, E. Carrieri, M. Vanwysberghe, S. De Meester Assessing the Potential of Green Solvents for Textile Recycling
15.45-16.00	G. Bonifazi, R. Gasbarrone, R. Palmieri, S. Serranti SWIR-based reflectance spectroscopy as an exploratory authentication tool of recycled textiles for cleaner production
16.00-16.15	F. Bonelli, J. Faludi, G. Kiss, V. Koltai, P. Morone Second-Hand and Vintage Clothing Markets in the Circular Economy: A Comparative Study of Consumers' Behavior and Sustainability Implications in Western and Eastern Europe
16.15-16.30	K. Kiskira, L.A Tsakanika, Th. Lymperopoulou, F. Tsopelas, G. Lyberatos, M. Ochsenkühn- Petropoulou Biotechnological recovery of neodymium and other rare earth elements from Greek bauxite residue: The BioNdREE approach
16.30-16.45	P. Fröhlich, H. Schmidt, M. Bertau Phosphogypsum as a secondary source for construction gypsum and rare earth elements: Potentials, risks and processing strategies
16.45-17.00	J. Almeida, F. Pedrosa, M.J. Plancha, A. Gonçalves, C. Nogueira Lithium Recovery from Spodumene via Calcium Chloride-Assisted Roasting
17.00-17.15	R. Mende, D. Kaiser, S. Pavón, S. Tampouris, M. Bertau The FEEL process in the context of End of Life Ceran® cooktops: Lithium recovery and downstream processing Unlocking a secondary lithium resource - FEEL processing of End-of-Life Ceran® cooktops-
17.15-17.30	N. Tsyntsaru, D. Bernotas, H. Cesiulis Corrosion of palladium in organic ligands as a gateway for sustainable recovery

17.30-17.45	H. Cesiulis, N. Tsytsaru, V. Pakstas Wastewater treatment after precious metals recovery
17.45-18.00	B. Hansel, C. Rogoll, M.Kraft, S. Tampouris, H. Schmidt, M. Bertau Selective Cu recovery from Cu slags using regenerative leaching method with ammonium peroxodisulfate
18.00-18.15	I. Yetik, S. N. Kose, M. Canbulat Ozdemir, Y.D. Yilmazel Recovery of nutrients from liquid fraction of digestate via struvite precipitation in a fluidized bed reactor using waste-derived reagents
18.15-18.30	J. Jawad, R. Govindan, K. Mahmoud, T. Al-Ansari, G. McKay, J. Saththasivam Performance Comparison of Conventional Soil and Charcoal-Based Media in an Outdoor Pilot Vertical Green Wall for Greywater Treatment
18.30-18.45	I.I. Mora Gamez, R.M. Ramírez Zamora, K. Valencia García Use of industrial iron waste for the production of Fe_3O_4 photocatalysts of the photo-Fenton type for the degradation of recalcitrant organic matter in water
18.45-19.00	H. Aslan, Ö. Vardar, Y. Yildirim Optimization of Green Synthesis of Fe_2O_3 Nanoparticles Using Citrus Peel Wastes
19.00-19.15	C. A.V. Torres, F. Santos, N. Ribeiro, C. Silva Pereira, M. A. M. Reis Cascade Valorisation of Tomato Pomace: as waste to biopolymer approach

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SESSION XVI

Hydrogen: solutions & innovations for H₂ production, efficient storage, distribution & applications / Methanol and other sustainable biofuels
Chair: M. Loizidou, A. Dutta, Junjun Wu, L. Lombardi

15.00-15.15	D. Hidalgo, E. Pérez-Zapatero, J.M. Martín-Marroquín, M.A. Sánchez-Gatón, P. Moretti Microbial taxonomy as a predictor of biohydrogen performance in anaerobic sludges
15.15-15.30	E. Thorin, P. Sospiro, S. Seethamraju, D. Bregoli, Hailong Li, L. Nibbi Boosting H ₂ production from high water content biowaste with negative carbon emissions (BIOHAVEN)
15.30-15.45	E. López-Fernández, J. Comendador, A. Ramírez, M. Muñoz-Morales, J. Llanos Hydrogen Production through Valorization of Invasive and Contaminated Biomass
15.45-16.00	C. Ch. Christodoulou, C. N. Christodoulou, K. A. Demetriou, D. P. Hadjipetrou Environmental alternative of processing recycled Aluminum metals to produce simultaneously value-added products such as, Green H ₂ Gas, Heat and NaAl(OH) ₄
16.00-16.15	A. Dutta, S. Kumar Kuila, B. Regmi, S. Salaudden Circular Hydrogen from Waste: Integrated Calcium Looping Gasification with In-Situ CO ₂ Capture and Biocarbon Storage
16.15-16.30	A. Sharifi, G. Campo, A. Cerutti, B. Ruffino, M. Zanetti Evaluation of H ₂ Biomethanation with CO ₂ Utilization in a Mesophilic Fed-Batch Reactor
16.30-16.45	S. Hernández, F. Nabi Khan, F. Dattila, H. Guzmán, M. Santarelli Green Hydrogen Production with Solar and Renewable Electricity: From Research Infrastructures to Ionic Liquid-Enhanced AEM Water Electrolysis
16.45-17.00	J. Snyman Circularity and Sustainability in the South African Solar Sector
17.00-17.15	D. S. Lara-Martín, T. López-Clavijo, R. F. Torres-Castro, E. P. Forero-Díaz, A. C. Rodríguez-Ordúz, C.E. Rincón-Triana, D. A. Castellanos-Ariza, P. Acevedo, F. López, P. Velasquez, I. Cabeza, L. Chacón Comparative Biohydrogen Production from Whey and Whey–Cattle Manure Co-Substrates via Dark Fermentation

17.15-17.30	J. F. Hernandez-Arango, C. A. Cardona Alzate Green ammonia as an alternative to traditional fertilizer routes. Prefeasibility analysis and future limitations
17.30-17.45	A. Arias, E. Katsou Integrated Approach to Safe, Sustainable and circular Biofuels: Indicator Design for developing a digital toolkit and eco-label
17.45-18.00	A. Conversano, D. Sogni, G. Lombardelli, D. Di Bona, F. Viganò, S. Consonni Techno-economic analysis of solid recovered fuel gasification for methanol production
18.00-18.15	Sh. St. Bravo Argote, C. A. Cardona Alzate Analysis of hybrid photovoltaic and coffee waste biomass systems to obtain energy for different applications in rural zones
18.15-18.30	Y. Jani, G. Biancini, L. Carvalho, S. Behera, H. Chen, H. Li, E. Dahlquist, E. Thorin Optimum technique for the remover of tar from the gasification of sewage sludge- Waste to Energy approach
18.30-18.45	E. Ahmad, S. Farhan Elahi, K. Alamgir Ahmad Comprehending the Role of Deprotonation Energy, Solvation Energy, and Catalysts Composition on the Production of Biomass-Derived Transportation Fuel
18.45-19.00	R. Kaini, F. Alizad Oghyanus, C. Eskicioglu Co-hydrothermal liquefaction of municipal sludge and grease trap waste: effects of mixing ratios and reaction conditions on product yield and characteristics
19.00-19.15	G.S. Nunes, T.F. Lopes, C. Silva, F. Gírio Life cycle assessment of renewable methanol production: the H2Driven project

IALYSSOS ROOM

SESSION XVII

Waste-to-Energy, Hydrogen & Energy from Waste

Chair: M. Loizidou, A. Aravossis, S. Consonni, C. Psomopoulos

9.00-9.15	A. Di Lisi, S. Piazzzi, F. Patuzzi, M. Baratieri Pretreatment of Feedstock to Enhance Hydrothermal Liquefaction Waste to Energy Process and Product Quality: A Review
9.15-9.30	S. Heberlein, W. P. Chan, G. Lisak From solid waste to slag for construction: Demonstrating high temperature slagging gasification for the treatment of heterogenous waste streams
9.30-9.45	S. Mariyam, M. Alherbawi, R. Govindan, G. McKay, T. Al-Ansari Predictive Machine Learning Models for Syngas Yields from Waste Biomass Gasification
9.45-10.00	A. Maragkaki, E. Maragkaki, G. Daskalakis, T. Kamperidis, L. Lombardi, R. Muñoz, A. Lazari, S. Saxioni, K. Karakitsou, T. Lolos, C. Tsompanidis, T. Manios Sustainable Transformation of Waste to Biomethane, through Innovative Upgraded Anaerobic Digestion and Gasification
10.00-10.15	H. Khan, M.D. Islam, I. Janajreh Kinetic Investigation of Tar Evolution during Green Waste Gasification for Sustainable Solid Waste Valorization
10.15-10.30	V. Kudelytė, J. Eimontas, N. Striūgas, K. Zakarauskas Catalytic pyrolysis of waste fishing nets for caprolactam recovery using a Ca-impregnated biochar catalyst
10.30-10.45	C. Gracia-Monforte, J. Ábrego, J. Arauzo Biomass pyrolysis with integrated capture of CO ₂ via Chemical Looping Combustion: Energy balance and carbon dioxide removal potential
10.45-11.00	J. Čespiva, G.N. Allen, J. Skřínský, J. Krejzek, D. Kupka Pelletised SRF for enhanced WtE processes

11.00-11.15	G. Ghiotto, G. Zampieri, A. Chazis, P. G. Kougias, S. Campanaro, L. Treu Microbiome metabolic modelling suggests a phage-driven microbial adjustments in pilot-scale CO ₂ biomethanation
11.15-11.30	P. Pari, S. Ganesh Palani, M. Othman, N. Eshtiaghi Enhancing Biogas Production from Food Organics and Garden Organics (FOGO) through Pretreatment Strategies
11.30-11.45	M. Quintero-Naucil, I. Herrera-Giraldo, M. Hoyos-Muñoz, L. Hincapie-Patiño, C. A. Cardona-Álzate, V. Aristizábal-Marulanda Transformation of Plantain Rachis into Adsorbent Materials and Energy Sources via Thermochemical Routes
11.45-12.00	S. Neuburg, T. Schwarzboeck, F. Okori, R. David Lee, H. Rechberger Exploring versatility of the Balance Method – Determining material-specific fossil CO ₂ -emission factors for RDF in Uganda
12.00-12.15	S. Rezgallah, A. Kesraoui Sustainable Removal of Indigo Carmine Using CTAB-Modified Phragmites australis Biomass
12.15-12.30	M. Dassatti, E. De Amicis, D. Marinidis, V. Innocenzi, B. Mattei, M. Prisciandaro Acoustic Cavitation for Lipid Extraction from Chlorella Biomass: Preliminary Experimental Assessment
12.30-12.45	P. Reñones, G. Blanco-Brieva, M.C. Capel-Sanchez, M. Lara-Serrano, S. Morales-delaRosa, J.M. Campos-Martin Selective deoxygenation of waste lipids over bimetallic phosphide catalysts
12.45-13.00	I.E. Achouri, H. Hassini Eggshells valorization from waste materials into highly efficient hydroxyapatite catalyst for methane dry reforming reaction
13.00-13.15	D. Urbancl, A. Skorjanc, D. Goricanec, L. Gajst, K. Rola, S. Gruber, A. Petrovic Energy Potential of Selected Food Waste Samples: A Comparative Analysis of Flaxseed Cakes, Hemp Cake, and Cherry Pits
13.15-13.30	P. Izák The potential of non-porous polymer membranes in downstream separation processes

13.30-13.45	H. Santos Junqueira, B. de Jesus Araújo Sousa, D. Lima Medeiros, V. Maria Zanta, L. Matos Queiroz Environmental Performance of Waste-Fuel Blending for Cement Industries: A Case Study in Northeastern Brazil
13.45-14.00	S. Ghosh, P. Mondal, A. Fedyukhin Municipal waste based multi-product energy conversion system with integrated carbon separation and energy storage: Plant models and initial enviro-energetic assessment
14.00-14.15	N. Tahir Sharif, L. Fatima, S. Ayesha Zaidi, U.-E-Kalsoom, A.-S. Nizami Resource Recovery from Produced Water by Sequential Dark-Photo Fermentation for Biohydrogen Generation
14.15-15.00	Lunch Break

**ASCLPIOS
ROOM**

SESSION XVIII

**Tools in the field of waste management
Chair: F. Dilek, M. Wilk, L. Matos Queiroz, A. Arias**

8.45-9.00	I. N. Giannakeas, V. Vasilaki, M. Loizidou From Legal Text to Actionable Sustainability Intelligence using AI and Knowledge Graphs
9.00-9.15	J. Tamás, N. É. Kiss, A. Nagy Life Cycle Assessment as a Decision Support Tool for Circular Nutrient Management in Broiler Production Systems
9.15-9.30	M.O. Bérghamo, L.V. Moreno, S.L. Murillo-Franco, M.A.M. Costa, K.J. Dussán Comparative Life Cycle Assessment of Spent Coffee Ground Valorization via Combustion vs. Magnetized Biochar Production for CO ₂ Mitigation
9.30-9.45	V. Veleva Environmental Assessment and Management in the Craft Beer Sector in Massachusetts, United States
9.45-10.00	C. S. Psomopoulos, Aik. Griva, A. Menti Evaluation of the energy and environmental footprint of the global PV module production by using Life Cycle Analysis

10.00-10.15	K. Ertugrul, F.B. Dilek Evaluation of Best Available Techniques for Paper Recycling Processes Using Life Cycle Assessment
10.15-10.30	F. Cecchini, V. Innocenzia, M. Prisciandaro, G. Mazziotti di Celso Comparison between LCA of a traditional and an innovative wastewater treatment plant aimed at water reuse for agricultural purposes
10.30-10.45	Y. D. Hernandez-Charpak, C. A. Diaz, Th. A. Trabold Life Cycle Analysis of biochar-based composites
10.45-11.00	E. Gagliano, S. Spotorno, L. Esposito, V. Tacchino, R. Canziani, D. El Chami, M. Gallo, A. Del Borghi, A. Turolla Environmental LCA and Social Hotspot Analysis of a circular process for the valorisation of sewage sludge ash and mining by-products into bio-based fertilisers
11.00-11.15	D. Sorino, L. Bartolucci, S. Cordiner, G. Costa, F. Lombardi, M. Mercurio Comparative Life Cycle Assessment of Pyrolysis vs. Incineration for the Valorization of Plastic-Organic Scraps from Anaerobic Digestion Plants
11.15-11.30	P. Watjanatepin, L. Steinwider, N. Miladinovic, L. Ceyssens, L. Eelen, T. Van Duyse, S. Vicca, T. Van Gerven, K. Van Acker Full Life Cycle Assessment and Life Cycle Costing of Mineral Carbonation of Steel Slags as a Carbon, Capture, Utilization and Storage Material in Agriculture
11.30-11.45	F. Biagi, M. Colonna Life Cycle Assessment of a Circular Footwear Production Chain: Environmental Performance of the ReShoes Mojito Model
11.45-12.00	O. Ozcan, N. Uzal, F.B. Dilek Scenario-based life cycle assessment of urban wastewater reuse systems: preliminary results
12.00-12.15	J. Helenius, P. Jafarzadeh, J. Heikkonen Deep Learning-Based Waste Material Classification Using Microwave Reflection Measurements
12.15-12.30	A. Sen, T. Aridil Ayten, I. Kucukoglu, M.K. Korucu An integrated solution approach for the long-term municipal solid waste management planning

12.30-12.45	R. Gajera, D. Khatiwada, M. Henrysson A combined material flow analysis and life cycle assessment of municipal solid waste management in Indian cities: Policy scenarios and uncertainty analysis
12.45-13.00	S. Ozgen, A. Wu, A. Cordoba Pacheco, F. Ruiz Advanced adaptive control for acid gas abatement from waste-to-energy plants
13.00-13.15	B. Ulger-Vatansever, T.T. Onay, M. Turkay A Data-Driven Analytical Modeling Framework for Waste and Energy Analysis in Manufacturing Systems
13.15-13.30	L. Vergine Symbolic Machine Learning Modeling of Biogas and Methane Production in Full-Scale Sewage Sludge Digesters
13.30-13.45	M. Llàcer Llàcer, C. Szablewski, P. Sebastien, E. Guilvert, C. Bartolomé Rodrigo, A. Rodenas García, C. Casado Coterillo, M. Rumayor Villamil, B. Dawood Nazer, A. Motola, A. Glaser Environmental Trade-Offs and Decision Support Criteria for Bio-Based Materials in Humanitarian Waste Management: A Life Cycle Perspective
13.45-14.00	Ar. Abrar, I. Farina, M. Russo, F. Colangelo, A. Petrillo Comparative Assessment of Wine Packaging Materials Using Life Cycle Assessment
14.00-14.15	A. Schmuck, A. Lamote, J. Delbarre, K.M. Van Geem, K. Ragaert, S. De Meester Balancing recycling efficiency and socio-economic equity in informal waste management systems: an agent-based simulation approach
14.15-14.30	S. Bernal Neira, C. Ramírez, Y. Hernández S Systemic Reduction of Landfill Inflows Through Organic Waste Processing Plants in Public-Private Waste Management Systems: A System Dynamics Approach
14.30-14.45	M. Struk, A. Lipka Boosting municipal waste management performance through communication tools
14.45-15.00	A. Abdullah, Xiaoyu Yan Life Cycle Cost (LCC) Analysis of Municipal Solid Waste Management Scenarios in Riyadh, Saudi Arabia

**SOCRATES
ROOM****Waste Valorisation I****Chair: A.B. Ribeiro, E. Castro, D. Hidalgo, D. San Martin****SESSION XIX**

9.00-9.15	V. Karmali, D. Vathi, A. Kritikaki, K. Komnitsas Valorisation of petalite tailings for the production of porous ceramics and alkali-activated materials
9.15-9.30	L. Rigamonti, C. Tua, G. Dolci State of the art of the recovery of bottom ash generated by municipal solid waste incineration in Europe
9.30-9.45	S. Gotovac, Atlagić, Lj. Tankosić, M. Čelebić, E. Babajić, E. Halilčević, A. Babajić, A. Biessikirski, A. Baziak, Bartoš Handkey, O. Kerezović Comprehensive Study of the Valorisation Potential for the Roman-era Iron Slag in Bosnia and Herzegovina
9.45-10.00	N. Landeka, S. Sukur, D. Dragojlović, S. Gotovac Atlagić Cascade Extraction of Red Mud Components as an Economical Route to Trace Critical Raw Materials Valorization
10.00-10.15	E. Kanellou, G. Siakou, Chr. Vaitsis, P. K.Pandis, G. Sourkouni, A. Zorpas, Chr. Argirusis Ultrasound-assisted Synthesis of Ag composites based on TiO ₂ and PANI/TiO ₂
10.15-10.30	M. Buono, A. Nanni, G. Yaşarünlü, M. Colonna Scalable silane functionalization of wine waste biofillers for improved interfacial compatibility in polypropylene composites
10.30-10.45	A. Ramírez, J.F. Pérez, A. Parodi, M. Muñoz-Morales, J. Llanos Development of a High-Efficiency Reactor for the Synthesis of Hydrogen Peroxide
10.45-11.00	H. Ibrahim, G.D. Fowler Production and optimisation of tyre-derived activated carbon: Understanding activation behaviour of recovered carbon black
11.00-11.15	J. Batista, M. Carvalheira, M. Matos, M.A.M. Reis. N.D. Lourenço Upcycling Fruit Waste and Sewage Sludge into High-Value VFAs Through Optimized Anaerobic Fermentation
11.15-11.30	M.-A. Karadendrou, A. Frantzeskou, I. Pitterou, A. Detsi, A. Tzani Development of an upcycling process for the valorization of banana peels using Natural Deep Eutectic Solvents

11.30-11.45	Thien Nguyen Luu Minh, A. Shariatmadar Tehrani, J. Hogue, C. V. Stevens, K. M. Van Geem, S. De Meester Removal of alkyl chlorides from plastic waste pyrolysis oil by means of reactive extraction: A kinetic study and batch reactor modeling
11.45-12.00	M. Wzorek, R. Junga, E. Yilmaz Valorization of paper industry waste and agricultural residues via co-pyrolysis
12.00-12.15	I. Gómez-Cruz, C.S. Sandoval-Gutiérrez, J.M. Romero-García, M.d.M. Contreras, J.A. Pérez-Pimienta, E. Castro Comparative evaluation of pretreatments with hot liquid water and ionic liquid to overcome the recalcitrance of olive pruning in bioethanol
12.15-12.30	T.A. Centeno, S. Carpio, A. Amado-Fierro, R. Forján, E. S. Santos, J.A. Oliveira From Urban and Construction Wastes to Technosols for Regenerative Gardening: Insights from a Two-Year Field Study
12.30-12.45	T. R. Siddhartha, C. A. Che, P. M. Heynderickx Hydrothermal carbonization for effective waste conversion: exploring different feedstocks and applications
12.45-13.00	M. Goliszek-Chabros, B. Podkościelna, O. Sevastyanova Valorizing Industrial By-Products: Lignin-Derived Polymeric Microspheres as Sustainable Sorbents for Emerging Pollutants in Water
13.00-13.15	A. S.Al Rahbi, M. Al Sharji, G. Al Hashmi, Al Zahraa Al Ghamari Sustainable Biodiesel Production from Animal Waste via Catalytic Process Using CaO–Sulphated Alumina as a catalyst
13.15-13.30	A. Marchetti, S. Berhouma, F. Valentino, M. Zeppilli Rapid Diagnostic Screening Evaluation of a Dual-Cathode Microbial Electrolysis Cell Performance for Bio-Hydrogen Production by Valorizing Real Waste-Derived Substrates
13.30-13.45	P. Gerl, J. Jony, M. Huber-Humer, C. Zafiu CO ₂ sequestration of alkaline waste by direct carbonation: Analytical investigation and evaluation of sewage sludge ash, MSWI bottom ash and red mud

13.45-14.00	H. Paksoy, L. Cioccolanti, G. Lombardi, L. Del Zotto, A. I. Fernández, A. Calderón, A. M. Rodriguez-Garcia, E. Rojas, G. Kardas, B. Koçak, T. Özkan, L. Karaytuğ, M. Liscio, P. Sospino GREENOLIVE Project: Circular and Sustainable Industrial Decarbonization in the Mediterranean Region via Solid Waste Valorisation and Power-to-Heat Integration
14.00-14.15	S. Mahgoub, Mohamed A. Fahmy, M. Abdelhak Microbial Bioconversion of Chicken Feathers: Advances, Challenges, and Prospects for Sustainable Waste Valorization
14.15-14.30	C. C. Siguinolfi, G. Labuto, E. N.V.M. Carrilho Sustainable sugarcane-based magnetic biosorbents: an efficient solution for antidepressant removal from complex aqueous matrices
14.30-14.45	Th. S. Castão, J. L. Ramos, G. Labuto, E. N.V.M. Carrilho Agro-industrial waste valorization: magnetic activated carbon from sugarcane bagasse for dye removal

**DELPHI
ROOM**

SESSION XX

Plastics & Bioplastics

Chair: K. Moustakas, J. de Claville Christiansen, S. De Meester, S. Mai

8.45-9.00	S. Ozkur, G. Sakmar, I. Yalcin-Enis, H. Sezgin Effect of Fabric Structure and Yarn Parameters on Microplastic Fiber Release from Polyester Fabrics
9.00-9.15	X.I. Loizidou, D.L. Orthodoxou Co-Designed Pathways to Marine Litter Management: Recommendations from Policy Analysis and Stakeholder Workshops in 11 Countries
9.15-9.30	T. Fettback, E. Freitas, S. Agarval, N. van den Hoek, S. Indriana, Dr. J. M. Kihila Financial Sustainability of Municipal Solid Waste Management to Reduce Marine Plastic Litter: Insights from a novel Material Recovery Facility (MRF) in Dar es Salaam, Tanzania
9.30-9.45	A. Agaba, C. Chan, P. Lant, B. Laycock, S. Pratt Understanding functional additives migration from PHA bioplastic blends in water

9.45-10.00	D.L. Orthodoxou, X.I. Loizidou, S. Malamis Developing and Implementing Fit-for-Purpose Open Environment Degradation Studies for Novel Bioplastics
10.00-10.15	Al. Funari, M. Colonna, Al. Zambon, M. Buono, M. Garagnani Decontamination of Oil-Contaminated HIPS Using Supercritical CO ₂ Extraction
10.15-10.30	F. Mattersberger, F. Part, M. Gasser, R. Weber, H. Rechberger Halogenated flame retardants in European plastic pipes and ducts – Evidence for POP contamination in historic stocks
10.30-10.45	Wang Li, S. De Meester Recovering Value from Flexible Plastic Packaging Waste: A Material Flow and Economic Assessment
10.45-11.00	F. G. Versteeg, S. de Meester Map4Plastics: Mapping Unrecycled Plastic Streams in Belgium to Enable Circular Value Chains
11.00-11.15	P. Beigl, G. Obersteiner, C. Zafu Bio waste in Austria – Composition of impurities, garden and household fractions, influencing factors and implications based on first nationwide, representative analysis
11.15-11.30	M. Dalsgaard Pedersen, B. Vejrum Waehrens Navigating Additive–Contaminant Interactions in Recycled Plastics: Implications for Waste Management and Advanced Recycling
11.30-11.45	G. Bonifazi, G. Capobianco, P. Cucuzza, S. Serranti Identification of TiO ₂ - and CaCO ₃ -Filled Polypropylene in Recycling Streams Using SWIR Hyperspectral Imaging
11.45-12.00	F. Traina, J. Viana, J.C. Fradinho, M. Matos, M.A.M. Reis Impact of organic loading rate on the monomer composition and molecular weight of polyhydroxyalkanoates produced with mixed microbial cultures
12.00-12.15	Pr. Patel, M. Kumar, V. Kumar, P. Ghosh Microplastic Contamination and Policy Implications in Bio-mined Soils: A Case Study from Sanitary Landfill Sites of New Delhi
12.15-12.30	J. L.Cesoniene, D. Sileikiene, A. Oleksina Plastic recycling opportunities in Lithuania

12.30-12.45	J. Wang, N.N. Hou, Y. Wang, Y. Mu Direct Conversion of Waste Plastics into Versatile Metal-Free Catalysts via Salt Templating
12.45-13.00	E. Luna, I. Olazabal, T. de Somer, P. Nachtergaele, X. Lopez, M. Ximenis, S. de Meester, H. Sardon Solvent switch strategy to facilitate the downstream process of chemical recycling of plastics
13.00-13.15	I.F.A. Daras, S. Ügdüler, S. De Meester Exploring the use of bio-based media in de-inking of printed plastics towards increasing the quality and purity of recyclates
13.15-13.30	J.C. Doolaege, F.L. Figueira, D.R. D'hooge, S. De Meester Development of a Ternary Fickian Diffusion Model for the Removal of Plasticisers from Poly(vinyl chloride)
13.30-13.45	N. Collier, T. De Somer, M. Roosen, S. De Meester, D. Manhaeghe Controlling and optimizing the volatile organic compound and organic contaminant removal by improved water management in plastic recycling plants
13.45-14.00	Chengqing Liu, Junjun Wu, Zhiyang Li, Tianhu Tao, Xun Zhu, Qiang Liao Laser-Diagnostic-Enabled Real-time Monitoring of Gaseous Products in the Electrothermal Upcycling of Plastic Waste by Programmable Joule Heating
14.00-14.15	A. Tehrani, S. De Meester Assessing the limitations of COSMO-RS thermodynamic model and the Gaussian output for solubility prediction of plastic additives and monomers
14.15-14.30	R. Kol, M. Van Melkebeke, A. Shariatmadar Tehrani, S. De Meester Removal of the legacy chemical hexabromocyclododecane from polystyrene waste
14.30-14.45	S. Ozkur, H. Sezgin, I. Yalcin-Enis Microfiber Release Behavior of PET and rPET Woven Fabrics: Influence of Material Type and Weave Structure
14.45-15.00	S. Gujar, E. Selmurzaeva, T. De Somer, S. De Meester Hydrolysis Behaviour of PLA in Alkaline Washing and its Recycling Implications

**IALYSSOS
ROOM**

EU policies and strategies for solid waste management
Chair: K. Lasaridi, S. Ozgen, P. Dutournié

SESSION XXI

15.00-15.15	A. Ramos, J. Espí Bridging circular economy and society: evaluating the social acceptance of circular strategies
15.15-15.30	M. Romenska Implementation of Extended Producer Responsibility (EPR) in the EU – Key Learnings
15.30-15.45	M. Nenkovic-Riznic Monitoring Local Waste Management Practices through Self-reported Municipal Data: Insights from Serbia
15.45-16.00	L. Martetschläger, S. Meilinger, I. Goerke, H. Spliethoff, S. Fendt Waste-to-X: Municipal Solid Waste Characterization and Potential for Circular Economy
16.00-16.15	K. Sobieraj, J. den Boer Redistribution of Food Surplus from Polish Primary Schools: Legal, Organizational and Technical Aspects
16.15-16.30	M.M. Yara, E.Z. Mohamed Enhancing Source Separation and Recycling to Achieve a Circular Economy in Egypt's Municipal Solid Waste System
16.30-16.45	P. Dutournié, E. Sculler, G. Guicheney Modelling of Thermochemical Heat Storage for domestic heating application
16.45-17.00	I. Abdel-Hadi, Y. Biçer, G. McKay Integrating Solar PV to Wastewater Treatment Plants for Sustainable Electricity Generation in Qatar
17.00-17.15	J. Ortigueira, M. Azevedo, H. Monteiro Assessing Environmental Performance of Solar Panels for Informed Consumer Decisions
17.15-17.30	N. Solomakou, D. Fotiou, M. Kontosis, M. Terzopoulos, A.M. Goula Valorization of unused beetroots through ultrasound-assisted osmotic dehydration of potato cubes

17.30-17.45	D. Fotiou, N. Solomakou, N. Ntinopoulou, A.M. Goula Valorisation of peach juice industry by-products: optimized sequential phenolic and pectin extraction using ultrasounds
17.45-18.00	H. Cruz-Elejalde, B. U. Olano-Oteiza, M. Amador-Cervera, A. Alonso-Vicario, A. M. Macarulla Influence of food loss and waste prevention actions on urban waste management systems
18.00-18.15	Ö. Vardar, Z. Pınar Gumus, Y. Yildirim Soxhlet Extraction and LC-q-TOF/MS Analysis of Catechins from Green Tea Waste
18.15-18.30	C. Altıntaş, F. Im Timbo, R. Öztep, C. Günden Consumer attitudes toward novel foods and their implications for sustainable food transitions: A district-level study from Türkiye
18.30-18.45	D. A. Sarigiannis, S.A. Sarikou Institutional, strategic and political framework for Hazardous Medical Waste (HMW) through the lens of climate neutrality and adaptation
18.45-19.00	C. Chauke, J.B.N. Mudumbi Evaluating Solid Waste Management Practices in University Cafeterias: A Case Study of CPUT Bellville Campus
19.00-19.30	Closing Session with the active participation of chair persons – Poster award ceremony – Announcement of the place for the 2027 14th International Conference on Sustainable Solid Waste Management

**ASCLIPIOS
ROOM****Agricultural and/or livestock waste - Aerobic biological treatment - Composting**
Chair: K. Gorazda, D. Skrzypczak, G. Izydorchyk, M. Pugliese**SESSION XXII**

15.00-15.15	S. Schab, M. Borowik, K. Borowik, P. Firan Biodegradable mineral-organic coatings for EEFs: A sustainable approach to nutrient release control
15.15-15.30	P. Tourís Sobradelo, A. Fernández Braña, J. Fierro Fernández Sustainability assessment of innovative antibiotics degradation and resource recovery from livestock manure using fungal and enzymatic bioreactors
15.30-15.45	L. Alfarano, S. Bellezza Oddon, L. Gasco, M. Pugliese Valorization of frass and exuviae from <i>Hermetia illucens</i> as a tool for reducing <i>Fusarium</i> wilt disease on lettuce
15.45-16.00	S. Jarosz, A. Libault, M. H. Jijakli Bioponics: Valorisation of poultry manure and ash sludge through aerobic treatment for hydroponic Fertilization
16.00-16.15	J. Rosik, M. Hejna From waste to fertilizer: chemical transformation and agronomic potential of chicken manure-derived hydrochars and biochars
16.15-16.30	H. Kominko, K. Gorazda, B. Tarko, K. Sawska, Z. Wzorek From waste to resource: the possibility of using waste from wastewater treatment plants in fertilizer industry
16.30-16.45	E. Deri, M. Adali, C. Kart, H.B. Unal, N. Azbar Efficiency of a Biochar Surface Cover on Mitigation of CH ₄ and CO ₂ Emissions from Liquid Dairy Manure
16.45-17.00	İ. Konar, R. Kunayeva, Y.D. Yilmazel Turning Untreated Chicken Manure into Hydrogen: <i>Thermotoga maritima</i> Performance via Culture Adaptation and Co-Digestion
17.00-17.15	G. Hazan Akcay, C. Mete Assessment of Bioelectricity Generation from Campus Organic Waste–Derived Compost in Microbial Fuel Cell

17.15-17.30	A. Ahsan, S. Pradhan, G. Mckay Organic Waste Management in the Middle East and North Africa (MENA) Region: European Policy Lessons and Climate-Adapted Composting Technologies
17.30-17.45	D. Āriņa, I.Teibe, R. Bendere Integration of biological waste recycling results from home-composting in national waste statistics: a case study of Latvia
17.45-18.00	E. Binner, M. Huber-Humer, C. Zafiu Treatment of faeces by industrial composting – investigation on process conditions, pathogens and endocrines
18.00-18.15	Sreeparvathy S. S., G. K. Varghese, C. Zafiu, S. Salhofer, Abhishek N. Srivastava, Anantha Singh T. S. Biowaste Composting: Key Lessons for India from Austria
18.15-18.30	S. Garnier, C. Guillou, JM. Blazy, C. Barlagne Household biowaste in Guadeloupe: a COM-B-based typology and targeted policy levers for composting uptake
18.30-18.45	T. Arkin, N. Meir, Ze Zhu, R. Posmanik, M. Obraczka, Y. Kay, A. Gross Biochar from Agricultural Waste Gasification: Characterization and Potential for Nutrient Recovery and Soil Enhancement
18.45-19.00	A. Tehseen, S. Martínez-Rey, A. Pedrouso, A. Mosquera-Corral, G. Feijoo, S. González-García Forecasting the environmental impact of partial nitrification-anammox adoption in dairy Manure treatment
19.00-19.15	K. Homir, A. Talha, A. Etahiri, R. Benhida Sustainable Solid Waste Management in Moroccan Phosphate Rock Processing: Advancing the Nitric Acid Route

**SOCRATES
ROOM****Waste Valorisation II****Chair: G. Mancini, F. Lombardi, A. Luciano****SESSION XXIII**

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| 15.00-15.15 | A. Sotiropoulos, P. A. Adamopoulos, M. Pitsa, D. E. Syrigou, C. Drosou, M. Krokida
Valorisation of Oilseed Press Cakes and Downgraded Lupins into Protein-Rich Ingredients through Ultrasound- and Microwave-Assisted Extraction: A Food Waste Management and Bioeconomy Approach |
| 15.15-15.30 | L. Leva, A. Lobosco, A. Mariniello, G. Oliva, V. Belgiorno, V. Naddeo, T. Zarra
Microalgal-assisted integrated biotechnology for sustainable biogas upgrading and CO ₂ valorization from waste-derived feedstocks |
| 15.30-15.45 | V.C. Sandu, S. Fogarasi, A.M. Pild
Integrating 450 °C Plastic-Waste Pyrolysis with a 1000 MW Coal/Coal-Biomass Power Plant With and Without Post-Combustion CO ₂ Capture |
| 15.45-16.00 | M.A.M. Costa, A.J. da Mota, G. Albini, L.O. Freitas, L.V. Moreno, A.T. Rizzo Iritsu, A.J.D. Souza, K.J. Dussan
The potential of biomass residues in CO ₂ capture by adsorption |
| 16.00-16.15 | Jiahui Bu, Wei Ping Chan, Guicai Liu, Chat How Joewin Koh Yang, G. Lisak
Chicken manure ash as a bioresource-based material for efficient carbon dioxide capture |
| 16.15-16.30 | G. Theochari, D. Kovacheva, D. Karashanova, G. Atanasova, M. Popova
Zeolite based composites derived from rice husks and fly ash as highly-effective catalysts in CO ₂ methanation |
| 16.30-16.45 | Th. Ghislain
Advancing biochar technologies in Quebec, Canada: A model for regional decarbonization |
| 16.45-17.00 | B. Alcántar-Vázquez, R.M. Ramírez-Zamora
High CO ₂ capture performance of alkaline silicates prepared from silica-rich industrial waste |
| 17.00-17.15 | S. Khamkure, G. Vázquez-Cornejo, A. Reyes-Rosas, L. Díaz-Jiménez, P. Gamero-Melo, D. E. Pacheco-Catalán, A. Zermeno-González, L. Samaniego-Moreno
Modified Co-precipitation and Pyrolysis of Pecan Nutshells for Maghemite-Biochar Production: RSM Optimization of Aqueous Fluoride Remediation |

17.15-17.30	D. Caterino, C. Maggetti, F. Simonetti, I. Olivotto, L. Bertin, M. Sgroi, A.L. Eusebi, F. Fatone Valorization of fish-processing residues through pilot-scale pyrolysis for biochar production
17.30-17.45	M. Hejna, J. Rosik, K. Świechowski, M. Domińska Valorization of chicken manure into biochar and hydrochar: Influence of process conditions on VOC release and material properties
17.45-18.00	H. Mutlubas, A.Uzel, G. Duman, J.Yanik Biochar as a seed-coating material
18.00-18.15	C. Borch, L. S. Fressato, A. Salimbeni Pilot-scale production of high-carbon biochar and phosphorus recovery from the residual waste from mechanical treatment of OFMSW through slow pyrolysis and leaching
18.15-18.30	I. Farina, Ar. Abrar, G. Di Chiara, F. Fraternali, F. Colangelo, A. Petrillo Optimized Cement-by-product blends for Solidification/Stabilization of Contaminated soils
18.30-18.45	D. Sandaruwan Premathilake, A. A. Manoj Prasad Silva, W.A.M.A.N. Illankoon, A. Rosatelli, F. Beltrametti, A. Bava, F. Battaglia, M. Mendola, F. Passaro, Al. Abbà, A. Franzetti, M. Vaccari Use of biochar and biosurfactants produced from agricultural waste to remediate hydrocarbon-contaminated soils: performances and environmental impacts
18.45-19.00	D. Bonanno, A. Luciano, G. Benina, C. Gatto, G. Mancini, D. Fino A circular approach for the treatment of hazardous incineration bottom ash containing molybdenum
19.00-19.15	Yi-Lin Shen, Pin-Jing He, Fan Lü, Hua Zhang Dynamic Pseudo-Labeling for Multi-Target Characterization of Solid Waste Residues Using Semi-Supervised Spectral Learning

**DELPHI
ROOM****Sludge Management & Recovery of materials from wastewater & sludge**
Chair: A. G. Capodaglio, P. Hlavinek, C. Pastore**SESSION XXIV**

15.00-15.15	C. Pastore, V. D'Ambrosio, V. Locaputo, L. di Bitonto Urban sewage scum as a source of biodiesel: from waste to resources
15.15-15.30	Z. Prus, K. Szkadłubowicz, J. Mikusińska, I. Kalembe-Rec, K. Styszko, A. Magdziarz, M. Wilk Comparative analysis of microplastics extracted from sewage sludge pretreated in a laboratory and a semi-pilot hydrothermal carbonization units
15.30-15.45	A. Serra-Toro, S. Caltavitturo, T. Romero-Vidal, H. Hellín, F. Mas, J. Vila, D. Bolzonella, J. Dosta Combination of acidogenic fermentation and gas-permeable membranes to produce VFA and recover ammonia
15.45-16.00	R.A. Timmers, F. Corona Encina, D. Hidalgo Barrio Electrochemical Characterization of a Three-Chamber Microbial Fuel Cell for Simultaneous Ammonium and Phosphate Recovery
16.00-16.15	E. Korotenko, M. Šyc, J. Jadrný, V. Veselý, P. Mašín A novel approach to gypsum recovery from MSWI plants with sodium-based wet flue gas treatment systems: results, challenges, and perspectives
16.15-16.30	Shon Shiju, P. Quille, N. O'Leary, B. K. Thiwari, G. Rajauria Integrated Ultrasound-Microwave Assisted Extraction as a Scalable Strategy for Humic Substance Recovery from Digested Sewage Sludge
16.30-16.45	K. Szkadłubowicz, Z. Prus, J. Mikusińska, M. Wilk Hydrothermal Carbonization as a Sustainable Pathway for Sewage Sludge Valorisation
16.45-17.00	Zahin Amrad, Wei Han Tu, Yunhui Hua, Wei Ping Chan, G. Lisak Aluminium and phosphorus recovery from gasification sewage sludge slag via a multi-step wet-extraction system
17.00-17.15	Z. Prus, K. Szkadłubowicz, J. Mikusińska, W. Strojny, R. Gruca-Rokosz, K. Styszko, A. Magdziarz, M. Wilk Microplastic Occurrence in Sewage Sludge from Polish Wastewater Treatment Plants in Relation to Facility Size and Sludge Treatment

17.15-17.30	M. Kit Kakuru, A. Turinawe, J. Baptist Tumuhairwe, T. Schwarzböck, R. David Lee, J. Karungi, J. Mugisha Social value of the welfare benefits and potential demand for improved fecal sludge management in urban settlements in Uganda
17.30-17.45	N. Žizkova, J. Hodul, P. Hlavinec, T. Chorazy, J. Racek Potential use of sewage sludge derived biochar as a partial cement replacement in polymer modified cement mortars
17.45-18.00	S. L. Parra-Angarita, A. Léonard Towards a better understanding of sewage sludge drying through its viscoelastic properties
18.00-18.15	A. Anand, O. Soni, G. Balasundaram, P. Gahlot, A.A. Kazmi, V.K. Tyagi, H. Kleiven, A. K. Sahu Impact of Thermal Pretreatment on Codigestion of SBR sludge and Municipal Solid Waste
18.15-18.30	B. S. Abhirami, T. S, Anantha Singh Sewage Sludge: A potential biocatalyst for the treatment of wastewater
18.30-18.45	S. Fatima, J. Žaltauskaitė Cadmium-contaminated soil phytoremediation by intercropping Medicago sativa with oilseed rape (Brassica napus L.)
18.45-19.00	M. Mahboob, M. Zain, A. S. Nizami Producing Zinc Coated Enriched Biofertilizer from Bio-digestate
19.00-19.15	G. G. Daniele, J. L. Ramos, G. Labuto, E. N. V. M. Carrilho Valorizing agricultural waste for advanced dye removal: activated carbon and its precursor performance

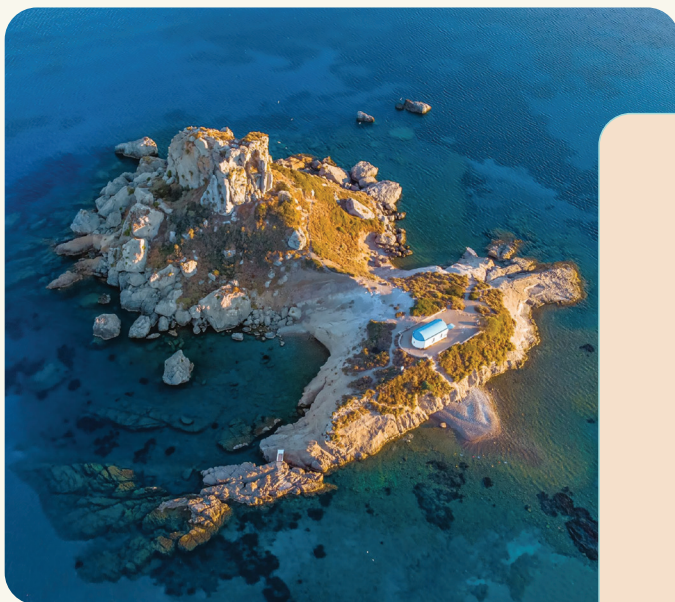


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