



National
Technical
University
of Athens



GLOBAL
WTERT
COUNCIL



MUNICIPALITY
OF CENTRAL CORFU
AND
DIAPONTIAN ISLANDS

CORFU2022

15-18 JUNE

corfu2022.uest.gr

9th International Conference
on
Sustainable Solid Waste
Management



9th International Conference on Sustainable Solid Waste Management

WELCOME

On behalf of the Scientific and Organising Committee, I am pleased to welcome you to the **CORFU 2022 9th International Conference on Sustainable Solid Waste Management**.

As in the cases of the previous international conferences, the **CORFU 9th International Conference** aims to make a step forward in the field of solid 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. This year we have almost 600 participants from 80 countries and 9 collaborating journals.

Every year significant effort is made to improve the quality of the papers and keep high standards, as proven by the increase of the papers finally published in the collaborating journals with high reputation and high impact factors.

Quality is always our first and main criterion and that is why we are also establishing collaboration with new journals, e.g. this year we have for the first time: **ENERGY (ELSEVIER, Impact Factor: 7.147)**.

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 4th time of the summer school prior to the conference. We had more than 50 participants this year and our aim is also to continue it and keep it in all our future conferences giving emphasis to different research fields every year.

The **CORFU 2022 Conference** aims to stimulate the interest of scientific community, competent authorities of public and private sector and inform them about the latest developments and achievements in the field of solid waste management with special emphasis on municipal solid waste. Waste prevention, separation at source & recycling, biological Treatment (composting & anaerobic digestion), the treatment at central facilities constitute priority subjects of the conference agenda. Attention is drawn to bioprocesses, biorefineries in waste management and of course WASTEtoENERGY with the contribution of the Waste-to-Energy Research and Technology Council, that is a co-organiser of this conference, with the active involvement of Prof. Nickolas Themelis, the father of the Council.

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).

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 all areas of solid waste management.

A special Session will focus on solid waste management and the role of Local Authorities & Municipalities for taking advantage of both recyclable materials and biowaste.

The Conference agenda is rich and dense, offering a considerable variety of topics presented through almost 500 presentations within the twenty-six different oral sessions and an extensive poster session with more than 150 posters.

I 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 every year. Also, I would like to thank the sponsors for the support to the conference.

We hope you will find the **CORFU 2022 Conference** useful and up to your expectations. After the virtual conference last year in Thessaloniki, we are happy that we meet in person this year, while participants also join us virtually.



Maria Loizidou, Professor NTUA
Chair of the Scientific Committee

4th PhD Summer School and Executive Training on Solid Waste Management



4th PhD Summer School and Executive Training on Solid Waste Management, 13 & 14 June 2022

The summer school will include 16 teaching hours in total on 13th & 14th June 2022.

On June 15th, 2022, the participants will attend the Poster Session of the "CORFU 2022 9th International Conference on Sustainable Solid Waste Management" and a final session roundtable with the main topic being the "State-of-the-art and future directions of Sustainable Solid Waste treatment: the pathway to Circular Economy".

Individual projects will be given to the participants and the grading of the course will be done on a Pass/Fail basis. All the attendees will be given a certificate of attendance after the completion of the PhD and Executive Training Summer School on Solid Waste Management.

The PhD and Executive Training Summer School final project **should be submitted until July 10th, 2022: 10 hours**

The results will be communicated individually to every attendee by July 20th, 2022.

CORFU2022

Monday 13th June, 2021

All times are in Greek Time

9.15-9.30	Prof. Maria Loizidou, National Technical University of Athens <i>Welcome by Prof. Maria Loizidou</i>
9.30-10.45	Dr. Konstantinos Moustakas, Dr. Dimitris Malamis, National Technical University of Athens <i>Sustainable Solid Waste Management: the pathway to Circular Economy</i>
10.45-12.30	Prof. David Bolzonella, University of Verona <i>Anaerobic processes for organic waste management, bio-energy and bio-based molecules production</i>
12.30-12.45	Break
12.45-13.45	Prof. Maria Loizidou, National Technical University of Athens <i>Anaerobic Digestion: a strategic process unit in integrated biorefineries</i>
13.45-14.15	Lunch Break
14.15-16.00	Prof. Nickolas Themelis, Prof. Thanos Bourtsalas, Columbia University <i>WASTE-to-ENERGY: Thermal Treatment for waste management</i>
16.00-16.15	Break
16.15-17.30	Prof. Stergios Vakalis, University of Aegean <i>Waste-to-energy analysis tools: Decision-making methods, energy modeling and policy tools</i>



4th PhD Summer School and Executive Training on Solid Waste Management

Tuesday 14th June, 2022

All times are in Greek Time

9.00-13.00	Pierantonios Papazoglou, Research & Strategy Manager at the Centre-of-Excellence in Risk & Decision Sciences (CERIDES) of the European University Cyprus <i>Marie Skłodowska-Curie Actions Postdoctoral Fellowships: Proposal Writing Hints-&-Tips</i>
13.00-13.30	Lunch Break
13.30-14.15	Dr. Jakub Raček, Technical University Brno, Faculty of Civil Engineering, Institute of Municipal Water Management <i>Characteristics of Solid Carbonaceous Product/Biochar after Pyrolysis of Biosolids/Biomass (Theory, description of technology of pyrolysis/torrefaction, characteristic of biochar from sewage sludge and food waste etc.</i>
14.15-15.00	Prof. Petr Hlavínek, Technical University Brno, Faculty of Civil Engineering, Institute of Municipal Water Management <i>The use of Biochar in Blue-Green Infrastructure (Use of biochar to green roofs, green parking lots, green walls for microclimate of building etc.)</i>
15.00-15.15	Lunch Break
15.15-17.00	Prof. Rafael Luque, University of Cordova & Francesco Maudiello, Università Mediterranea di Reggio Calabria <i>Waste-to-Wealth: the valorization concept</i>
17.00-17.30	Prof. Maria Loizidou, Dr. Konstantinos Moustakas, Dr. Dimitris Malamis, National Technical University of Athens <i>Closing Remarks</i>



CORFU2022

Wednesday 15th June, 2021

All times are in Greek Time

Poster session

Final session:

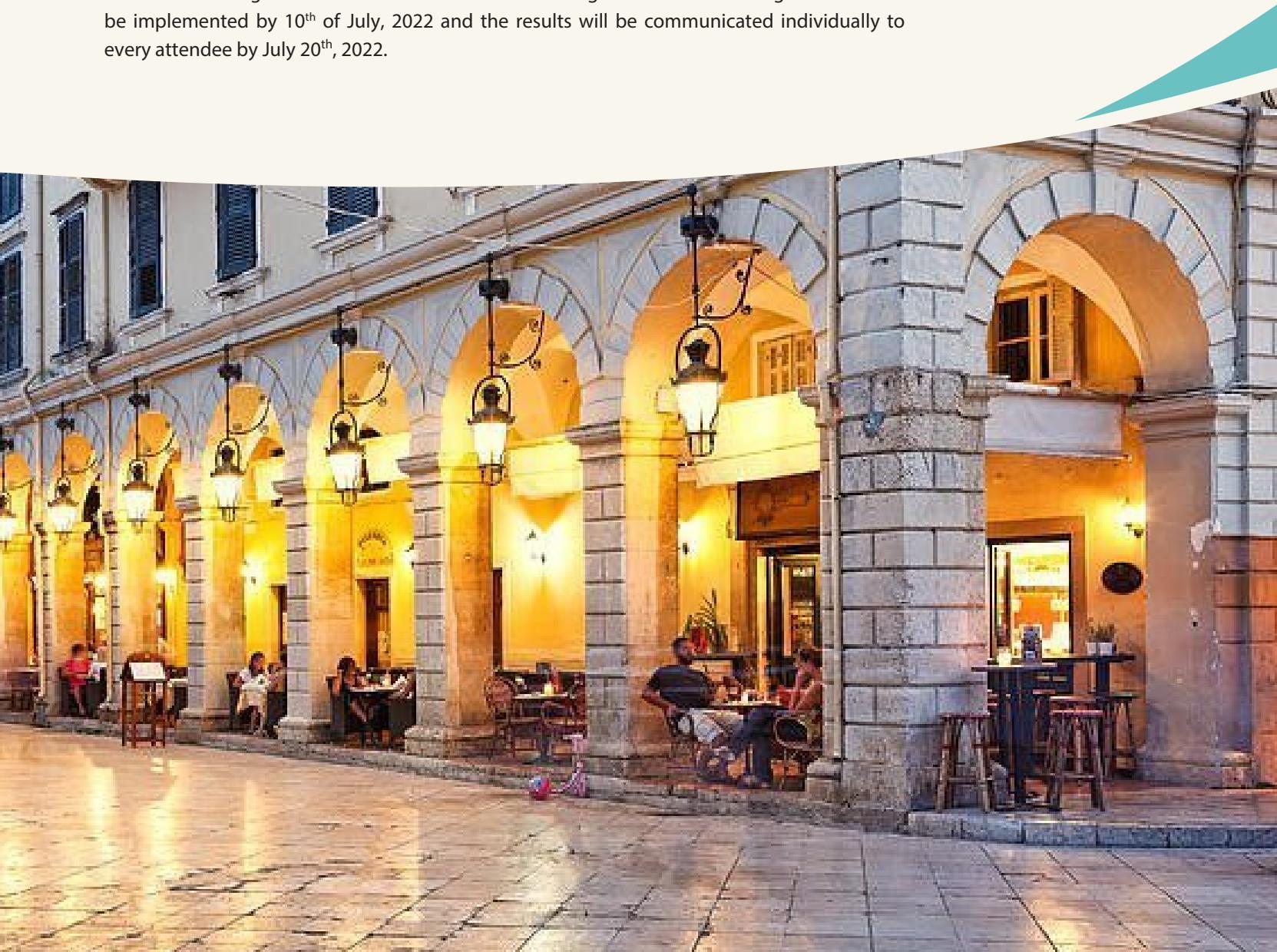
*State-of-the-art and future directions of Sustainable Solid Waste treatment:
the pathway to Circular Economy*



4th PhD Summer School and Executive Training on Solid Waste Management

PhD and Executive Training Summer School final assignment -
until July 10th, 2022: 10 hours

The certificate of attendance will be given immediately after the completion of the 4th PhD and Executive Training Summer School on Solid Waste Management. The final assignment should be implemented by 10th of July, 2022 and the results will be communicated individually to every attendee by July 20th, 2022.



9th International Conference on Sustainable Solid Waste Management

SCIENTIFIC COMMITTEE

Maria Loizidou, National Technical University of Athens, Chair

Abdul-Sattar Nizami, King Abdulaziz University
Adam Smoliński, Central Mining Institute
Adela Galvin, University of Cordoba
Agapios Agapiou, University of Cyprus
Ahmed El-Gendy, American University in Cairo
Aleksandra Djukic-Vukovic, University of Belgrade
Alexandra Ribeiro, Universidade Nova de Lisboa
Amane Jada, IS2M-CNRs
Anastasia Zabaniotou, Aristotle University of Thessaloniki
Anastasios Zouboulis, Aristotle University of Thessaloniki
Andrea Capodaglio, University of Pavia
Ange Nzihou, Ecole des Mines d'Albi
Antonis Zorpas, Open University of Cyprus
Apostolos Koutinas, Agricultural University of Athens
Apostolos Vlyssides, Jaypee University of Information Technology
Barbara Ruffino, Politecnico di Torino
Carlos Ariel Cardona Alzate, Universidad Nacional de Colombia sede Manizales
Carol S.K. Lin, City University of Hong Kong
Celia Dias-Ferreira, Universidade Aberta & CERNAS - Research Center on Natural Resources,
Environment and Society
Chew-Tin Lee, University Technology of Malaysia
Christopher Cheeseman, Imperial College
Claudio Dilacconi, Consiglio Nazionale delle Ricerche (CNR)
Costas Velis, University of Leeds
Costas Costa, Cyprus University of Technology
Costas Velis, University of Leeds
Cristobal Noe Aguilar Gonzalez, Universidad Autónoma de Coahuila
Daniel Tsang, The Hong Kong Polytechnic University
David Bolzonella, University of Verona
David Newman, World Biogas Association
Dimitrios Kaliampakos, National Technical University of Athens
Dimitrios Komilis, Democritus University of Thrace
Dimitrios Malamis, National Technical University of Athens
Dimosthenis Sarigiannis, Aristotle University of Thessaloniki
Di Wang Technische, Universität Braunschweig
Dolores Hidalgo Barrio, CARTIF Technology Centre
Evina Katsou, Brunel
Ezio Ranieri, University of Bari
Filiz Dilek, Middle East Technical University

Francesco Fatone, Marche Polytechnic University
Georgia Labuto, Universidade Federal de São Paulo
Gerasimos Lyberatos, National Technical University of Athens
Giuseppe Mancini, University of Catania
Heribert Insam, University of Innsbruck
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Ioannis Anastopoulos, University of Ioannina
Ioannis Skidas, Technical University of Denmark
Irini Angelidakis, Technical University of Denmark
Isam Janajreh, Masdar Institute
Jale Yanik, Ege University
Jian Li Hao, Xi'an Jiaotong-Liverpool University
Joan Dosta, University of Barcelona
Joseph Patrick Hettiaratchi, University of Calgary
Juan Antonio Baeza Labat, Universitat Autònoma de Barcelona
Jun Wang, Jiangsu University of Science and Technology
Katarzyna Chojnacka, Wrocław University of Technology
Katherine-Joanne Haralambous, National Technical University of Athens
Katerina Lasaridi, Harokopio University
Konstantinos Aravosis, National Technical University of Athens
Konstantinos Moustakas, National Technical University of Athens

ORGANIZING COMMITTEE

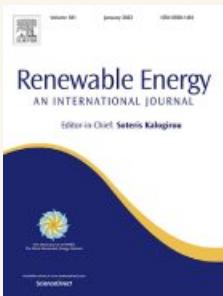
Konstantinos Moustakas, National Technical University of Athens, Head

A.C. (Thanos) Bourtsalas, Columbia University
Dimitrios Malamis, National Technical University of Athens
Elli-Maria Barmpouti, National Technical University of Athens
Konstantinos Passadis, National Technical University of Athens
Maria Kyriazi, National Technical University of Athens
Nikoleta Kontogianni, National Technical University of Athens
Sophia Mai, National Technical University of Athens
Stergios Vakalis, University of the Aegean

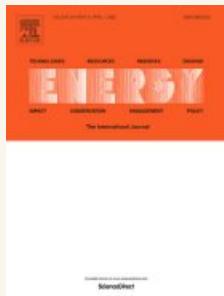
Publications

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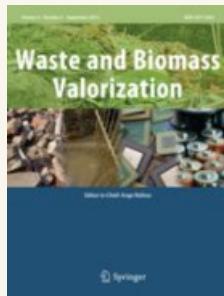
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Renewable
Energy



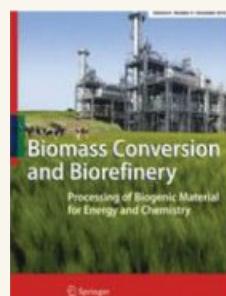
Energy



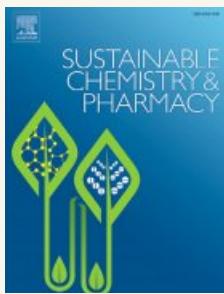
Waste and Biomass
Valorization



Environmental Science
and Pollution Research



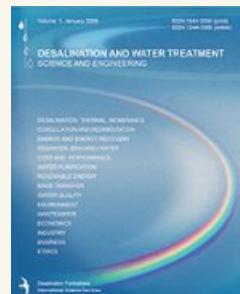
Biomass Conversion and
Biorefinery



Sustainable Chemistry
and Pharmacy



Biofuel Research Journal



Desalination and
water treatment



Biochemical Engineering
Journal

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8.00-9.15 Registration

ROOM 1

Welcome Speeches

9.15-9.45 **Welcome Speeches**

9.45-11.15 **Keynote Speakers**
Chair: M. Loizidou

Arnoldas Milukas, European Research Executive Agency (Established by the European Commission)
EU Research and Innovation: New Funding Opportunities for the Circular Economy

Jirí Jaromír KLEMEŠ, Brno University of Technology
Sustainable Solid Waste Management – Lessons from COVID-19 Pandemics

Carol S. K. Lin, City University of Hong Kong
Reducing Transmission of Novel Coronavirus and Other Infectious Diseases Using
Food Waste-derived Medical Textiles via Electrospinning for Healthcare Apparel and Personal
Protective Equipment

Nicolas Abatzoglou, Université de Sherbrooke
The Nano-F-PoRes Project for the production of nanocarbons and energy carriers from waste
plastic streams

Stephen Smith, Imperial College London
Reprioritising Resource Recovery for Sustainability

11.15-11.45 ☕ Coffee Break

ROOM 1
SESSION I

MSW management I
Experience of local authorities in waste management
Chair: M. Loizidou, G. Kremlis

11.45-12.00	M. Loizidou Municipal biowaste: The way forward
12.00-12.15	M. Geranis, President FODSA of Central Macedonia, President of the Municipality of Pylaia Chortiatis Circular economy: From theory to practice
12.15-12.30	V. Analytis, FODSA of Ionian Islands Solid waste management planning for the case of the Ionian Islands
12.30-12.45	I. Segkos, President of Voreia Pediada FODSA & Mayor of Hersonisos The era after MBT
12.45-13.00	D. Malamis Valorisation of source separated biowaste for biobased products
13.00-13.15	A. Mavraganis The PAYT experience in Vrilissia Municipality
13.15-13.30	V. Dimoulis Marine litter management in the city of Corfu
13.30-13.45	S. Theodoridou, E.D. Polytides Integration of the Transformational Leadership Model into a school organization through the utilization of recycling and reuse of materials. Case study "The sustainable development ... is going to school"
13.45-14.00	V. Liogkas, M. Vitoraki Circular Economy and Textiles: Challenges and Opportunities
14.00-14.15	J. Barbir, A. Lingos, E. Foschi, Z. Stasiškiene, C. Skanavis, W. Leal Filho Assessing Readiness of Greek municipalities to introduce bio-based materials in waste management streams
14.15-14.30	L. Temmerman, C. Veeckman Which factors impact households' selective biowaste sorting? An agenda for future behaviour change campaigns in Athens
14.15-15.00	Lunch Break

ROOM 2
SESSION II**Circular Economy & Symbiosis Networks**
Chair: D. Hidalgo, D. San Martin, A. Luciano

11.45-12.00	I. L. de Paoli The Use of Synthetic Soil for The Vegetables Cultivation in Conditions of Limited Water Consumption
12.00-12.15	M. Gutiérrez, I. Olabarrieta, B. Iñarra, C. Bald, G. Foti, J. Zufía Changing perspectives: From waste and wastewater management to side-stream valorisation in fish cannery
12.15-12.30	M. Rizzari, E. Agosti, G. Grazieschi, C. Hoffmann, J. Bastos Supporting a regional strategy for circular economy in South Tyrol, Italy
12.30-12.45	K.M. Karakasné Steps towards circularity in hotel operation
12.45-13.00	V. Benedetti, F. Patuzzi, M. Baratieri FRONTSH1P CSS1: a Circular Systemic Solution for the valorisation of wood packaging waste
13.00-13.15	H. Pérez-Aguilar, M. Lacruz-Asaro F. Arán-Ais Industrial symbiosis to valorise wastewater derived from rendering plants for different industrial applications
13.15-13.30	T. Manios, F. Galliou, G. Daskalakis, I. Grammatikakis, I. Rombogiannakis, I. Vlachakis Innovative Feed Production from Food Waste and Poultry Slaughterhouse by-products: A Techno-economic Evaluation
13.30-13.45	V. Proskynitopoulou, S. Lorentzou, K. Plakas, R. Yaman, B. Herbert, Z.L. Ye, F.J. Rubio, A. Zouboulis, P. Koulias, K.D. Panopoulos Sustainable exploitation of biogas plant digestate within circular economy: high quality organic fertilizer production
13.45-14.00	E. Valiasil, M.H Sarrafzadeh, S.B. Ghaffari Industrial waste quantity, composition and characterization in Iran: circular economy approach
14.00-14.15	A. Reboa, G. Besio, L. Cutroneo, I. Geneselli, S. Gorbi, A. Nardi, M.E. Piccione, F. Regoli, M. Capello The EU Interreg Project "GEREMIA" on waste management for the improvement of port waters: results on monitoring the health status of fish as bioindicator

14.15-14.30	S. Werle, S. Sobek, M. Sajdak, H. Mumtaz, R. Muzyka Hydrothermal treatment of plastic waste within a circular economy perspective
14.30-14.45	Hongtao Zhang, Khadije Elkadi, Isam Janajreh Assessment of Multistage Freeze Desalination Process for Brine Management and Maximizing Water Recovery
14.45-15.00	C.I. Camacho, S. Estévez, G. Feijoo, M.T. Moreira Dark fermentation as an environmental-sustainable win-win solution for bioenergy production

ROOM 3
SESSION III**Waste Valorization I**
Chair: K. Chojnacka, B. Ruffino, A. Djukić-Vuković

11.45-12.00	F. Rizzioli, D. Bolzonella, F. Battista Nutrient Recovery from agricultural digestate at high TRL: A European State of Art
12.00-12.15	M. Prasad, M. Gaffney, N. Tzortzakis, A. Jennings A rapid food waste valorisation into organic fertilizer using a so called disruptive technology
12.15-12.30	M. Samoraj, K. Chojnacka Innovative micronutrient fertilizers by biosorption for organic farming
12.30-12.45	S. Staikos, A. Karnaouri, S. D. Stefanidis, K.G. Kalogiannis, A.A. Lappas, E. Topakas Valorization of agricultural biomass residues towards the production of docosahexaenoic acid (DHA) by the heterotrophic dinoflagellate <i>Cryptocodinium cohnii</i>
12.45-13.00	A. Witek-Krowiak, D. Szopa, K. Chojnacka Encapsulation of hydrolyzates from waste high-protein materials in a hydrogel matrix - a solution for sustainable agriculture
13.00-13.15	A. Djukić-Vuković, J. Grbić, D. Mladenović, S. Lazović, L. Mojović Advanced oxidation processes in treatment of agricultural biomass residues

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13.15-13.30	G. Pesante, C. Bastianelli, A. Zuliani, R. Lo Coco, S. Ambrosini, A. Zamboni, N. Frison Valorization of agricultural residues into microbial proteins and protein hydrolysates by PHA-producing bacteria
13.30-13.45	L. Daza-Serna, A. Masi, S. Serna-Loaiza, J. Pfnier, G. Stark, R. L. Mach, A.R Mach-Aigner, A. Friedl Detoxification strategy of wheat straw hemicellulosic hydrolysate: an approach for cultivating Trichoderma reesei
13.45-14.00	M. Mironiuk, K. Chojnacka Utilization of anaerobic digestate for fertilization purposes - a new technology proposal
14.00-14.15	M. Parchami, J. A. Ferreira, M. J. Taherzadeh Valorization of brewers' spent grain (BSG) by submerged edible filamentous fungi cultivation
14.15-14.30	A. Tzani, D.-A. Bagaki, A. Detsi Natural Deep Eutectic Solvents as plasticizers and mechanical properties modifiers of edible films from dairy by-products
14.30-14.45	E. Suárez, M. Tobajas, A. Diaz, M. Reguera, A.F. Mohedano, M.A. de la Rubia Evaluation of green waste hydrochar application as soil amendment
14.45-15.00	S. Shukla, A. Shukla, A. W. Hodges Valorization of farm pond biomass as fertilizer for economically recycling phosphorus

ROOM 4
VIRTUAL
SESSION IV

Aerobic Treatment & Anaerobic Digestion I
Chair: M. Tabatabaei, S. Varjani, M. Kumar Awasthi

11.15-11.30	C. F. Portela, M. T. Santos, T. Trindade Study of composting in a Portuguese urban area
11.30-11.45	E. Charilaou, A. Christou, P. Dalias, A. Zorpas, A. Agapiou, M. Stylianou Improving the fertility of mine tailings with the use of compost materials
11.45-12.00	S. Fouguira, A. Ben Amara, M. El Haji, J. Benhra, E. Ammar Automatic And Smart Composting Unit Achievement
12.00-12.15	G.M. Fabian, V.F. Nicolas, G.P. Miguel Evaluation of the C/N ratio obtained in the composting of sugar cane residues
12.15-12.30	N. Gharsallah, D. Triki, F. Feki, S. Loukil, S. Sayadi, S. Khoufi Anaerobic co-digestion of fruit and vegetable wastes for biogas production and digestate valorization
12.30-12.45	G. Ozyildiz, D. Okutman-Tas, D. Guven, G. Emel Zengin, E. Cokgor, G. Insel A model based evaluation of anaerobic conversion kinetics on full-scale municipal sludge digesters
12.45-13.00	Arma Yulisa, Sang Hyeok Park, Seokhwan Hwang Effect of feeding strategies on anaerobic digestion of fish waste
13.00-13.15	S. De Gisi, G. Gadaleta, A. Giuliano, MK. Kuchta, G. Santomas, F. Todaro, M. Notarnicola Anaerobic digestion of bio-plastic waste: the issue of biodegradation and weight loss
13.15-13.30	M. Dewiandratika, S.M. Grimes, S.R Smith Alkali pretreatment and high solids anaerobic digestion of lignocellulosic agricultural residues with coal fly ash and fermented food waste neutralisation
13.30-13.45	Wonseob Lee, Md Abu Hanifa Jannat, Chayanee Chairattanawat, Eunji Kim, Seokhwan Hwang Influence of initial methanogenic diversities on the process performance of anaerobic methanation of acetate
13.45-14.00	S. Pentassuglia, M. De Sanctis, V.G. Altieri, C. Di Iaconi Effect of thermal and thermo-chemical pre-treatments on OFMSW anaerobic digestion

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14.00-14.15	P. Photiou, I. Vyrildes Phosphorous adsorption by treated biowaste: challenges and prospects
14.15-14.30	Sujin Choi, Chayanee Chairattanawat, Yulisa Arma, Sanghyeok Park, Seokhwan Hwang Effects of Fish Waste Addition on Anaerobic Co-digestion of Sludge with Food Waste
14.30-14.45	A. Mohammad Rahmani, B. Ahmed, A. A. Kazmi, C. Shekhar P. Ojha, V. Kumar Tyagi Anaerobic co-digestion of wheat straw with food waste and cattle manure: Optimization of processing parameters (ISR, C/N, TS %) for enhanced biogas yield
14.45-15.00	L. D. Allegue, M. Ventura, J. A. Melero, D. Puyol Organic load affects carbon and electron allocation in OFMSW photobiorefinery of purple phototrophic bacteria for PHA accumulation

ROOM 1
SESSION V

MSW management II
Experience of local authorities in waste management
Chair: M. Loizidou, G. Kremlis

15.00-15.15	T. Prastitou Merdi 2021 Proposal for a Regulation on shipments of waste: A significant step forward in updating the EU legislative framework?
15.15-15.30	L. Streff Transition of Georgia to a new waste management in the sense of circular economy using the examples of Tbilisi and Batumi
15.30-15.45	K. Tsioptsias Management of household hazardous waste
15.45-16.00	I. Spanos, A. Sotiropoulos, Ch. Fotakis, K. Tsimpliaris, G. Rigopoulos, S. Mani Hazardous Household Waste in the Municipality of Athens: qualitative and quantitative characteristics
16.00-16.15	A. Anthouli, K. Valta, C. Tsouti, E. Vogiatzidaki, E. Skourtanioti, B. Matuška, V. Melčová, V. Matušková, B. Miranda, J. Franco, P. Griffiths, S. Rojo Assessment of the policy and legislative framework, on urban biowaste valorisation and bio-based products, at the EU, and at national, regional and local level for Greece, Czech Republic, Italy, Spain, and UK
16.15-16.30	E. Chioatto, M.C. Liscio, P. Sospiro State of the art of circular materials accounts
16.30-16.45	I. Petrovic, N. Kaniski, N. Hrncic, D. Bosilj Short and long-term settlement properties of MBT waste
16.45-17.00	P. Nowakowski, M. Wala Investigating electric garbage trucks use for waste collection for urban and rural communities
17.00-17.15	M. Struk, P. Wercholáková Incentive systems in municipal solid waste management – a 10-year case study of Mikulov district
17.15-17.30	Á. Fernández Braña, C. Dias Ferreira Practical comparison of alternatives for unit-based pricing of municipal waste. The experience of the LIFE PAYT project

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17.30-17.45	I. Voukkali, P. Loizia, A.A. Zorpas Urbanization and Solid Waste Production: prospects and challenges
17.45-18.00	H. Hinrichsen, O. Dahn, K.E.S. Klint, C. Aggelopolus, F. Dondero A holistic solution for PFAS pollution. Aims, solutions and remediation technologies developed under the H2020 project SCENARIOS
18.00-18.15	M. Romenska How to harmonise separate collection - Best practices, local realities and EU wide needs
18.15-18.30	S. Oluwadipe, D. Purchase, H. Garelick, S. McCarthy, H. Jones Investigating Household Recycling Barriers in Westminster City
18.30-18.45	Yu. Matiiuk, G. Liobikiene The impact of informational, convenience, social, and financial tools on waste sorting behavior in Lithuania
18.45-19.00	V. Dimoulis Intelligent Cities Challenge (ICC): A green and digital transition opportunity for the Municipality of Central Corfu and Diapontia Islands
19.00-19.15	P. Loizia, A.A. Zorpas, I. Voukkali The impact of Covid-19 Pandemic in municipal solid waste production. The case study of Ayia Napa Municipality

ROOM 2
SESSION VI

Tools in the field of waste management
Chair: K. Abeliotis, D. Malamis, F. Patuzzi

15.00-15.15	E. Maniati Anagnostopoulou, V. Terzis, C. Chroni, K. Abeliotis, K. Lasaridi Social Life Cycle Assessment of the Transformation of Food Waste to Animal Feed via a Solar Drying Unit in Greece
15.15-15.30	C. García-Velásquez, Y. van der Meera Ex-ante Life Cycle Assessment of the energy production in a paper and pulp mill
15.30-15.45	D. San Martin, G. Foti, M. Gutierrez, C. Bald, J. Ibarruri, S. Espersen, J. Zufía, E. Sáez de Cámara, B. Iñarra Analytic Hierarchy Process (AHP) for the analysis of the viability of fish side streams valorisation
15.45-16.00	M. Benzerzour, A. Zeraoui, W. Maherzi, N.E. Abriak Management of waste in Civil engineering: a new decision support software for the reuse of dredged sediments
16.00-16.15	L. Menin, S. Piazz, D. Antolini, M. Baratieri Embedding commodity price variation in the economic evaluation of biofuels projects: the example of a Power-to-Gas biomass-to-biomethane process under the Italian biomethane subsidy scheme
16.15-16.30	M. Quintern 1.3 million tonnes industrial and municipal organic waste vermicomposted in New Zealand - Industrial vermicomposting integrated in farm management for cost efficient, regional organic waste management and sequestering carbon in soils
16.30-16.45	D. Tangilis, E. Dellaporta, T. Paschali e-Governance in Solid Waste Management of Central Macedonia
16.45-17.00	T. Soleymani Angili, K. Grzesik, E. Salimi, M. Loizidou Life Cycle Analysis of Food Waste Valorization in Laboratory-Scale
17.00-17.15	M. Tsangas, A.A. Zorpas Meta-analyses of the recent energy strategic planning in the framework of sustainability assessment. A review
17.15-17.30	I. Papamichael, G. Chatziparaskeva, I. Voukkali, P. Loizia, G. Pappas, A. A. Zorpas Existing tools used in the framework of environmental performance

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17.30-17.45	J. Bacenetti, C. Conti, M. Costantini, M. Guarino Life cycle assessment of pig rearing with wet acid scrubber for ammonia emissions reduction
17.45-18.00	T. Daddi, L. Marrucci, N. Maria Todaro, F. Iraldo Life Cycle Assessment (LCA) of a professional football match and the relevance of food & beverage impacts
18.00-18.15	M. Tsakona, E. Karapidakis, T. Manios, N. Vidakis Roadmap to zero waste athletic facilities: The case of Athens Olympic Sports Center
18.15-18.30	P. Sospiro, M.C. Liscio, C. De Ponte State of the art on Life Cycle Assessment on fashion industry
18.30-18.45	C.E. Orrego, N. Salgado, T. Agudelo Environmental Life Cycle Analysis of acai powders obtained by Vacuum Drying
18.45-19.00	É. Erdélyi Sensitivity analyses of carbon footprint measurement, comparative case studies
19.00-19.15	M. Waqas, F. Jabeen, M. Adrees, M. Ibrahim, A. S. Nizami Estimating the Environmental Impacts of Municipal Solid Waste Management in the Developing Country: A Life Cycle Assessment Study
19.15-19.30	N. Salahi, M. A. Jafari, A. Abulibdeh A Network Modelling Approach to Energy Efficiency Optimization in Industrial Facilities

ROOM 3
SESSION VII**Bioprocesses, Biorefineries in waste management I****Chair: M. T. Moreira, N. Abatzoglou, A. Koutinas**

15.00-15.15	A. Zuliani, R. Lo Coco, G. Pesante, F. Battista, D. Bolzonella, N. Frison Anaerobic bioprocesses towards the conversion of carbon dioxide into bio-based products: as short review
15.15-15.30	C. A. Cardona Alzate, M. Ortiz-Sanchez, J.C. Solarte-Toro Food residues biorefineries: Design strategy based on multifeedstocks analysis
15.30-15.45	R. Rebollo-Leiva, M. T. Moreira, S. González-García Isobutene production from wheat straw in a biorefinery perspective: A life cycle analysis
15.45-16.00	V. Felekis, C. Stavraki, D. Malamis, S. Mai, E.M. Barampouti Improving sustainability of potato processing industries
16.00-16.15	F. Regis, A. Monteverde Videla, D. Fino Fermentation of CO ₂ and H ₂ for formic acid production by Thermoanaerobacter kivui
16.15-16.30	N. Perez-Esteban, C. Vidal-Antich, M. Peces, J. Dosta, S. Astals Towards understanding the role of product concentration on acidogenic fermentation yield and profile
16.30-16.45	D. Ladakis, K. Filippi, C. Pateraki, O. Psaki, A. Koutinas Evaluation of cold plasma treatment for enhanced enzymatic hydrolysis of waste stream
16.45-17.00	U. C. Roy, J. L. Wagner, T. Radu Production of metabolites in microalgae under alkali halophilic growth medium using dissolved inorganic carbon source
17.00-17.15	S. Serna-Loaiza, W. Wukovits, A. Friedl Integral valorization of grapevine shoots from the variety Grüner Veltliner: A technoeconomic assessment
17.15-17.30	M. Ortiz-Sanchez, C.A. Cardona Alzate, J.C. Solarte-Toro Organic kitchen food waste valorization applying the biorefinery concept in the Colombian context

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17.30-17.45	F. Hernández-Ramos, A. Morales, R. Fernández-Marín, L. Sillero, I. Dávila, X. Erdocia, M. Gonzalez, R. Llano-Ponte, J. Labidi Integrated Multiproducts Biorefinery
17.45-18.00	N. Giannakis, E. Titiri, E. Stylianou, K. Filippi, C. Pateraki, A. Koutinas Integrated biorefinery development for the extraction of value-added components from orange peel waste streams
18.00-18.15	T. Sar, M. Y. Akbas, M.J. Taherzadeh Integration of bioactive compounds rich pomegranate wastes into biorefinery
18.15-18.30	P. Nachtergael, S. De Meester, J. W. Thybaut, J. Dewulf Increasing flexibility of feedstock use in biorefineries via modelling: producing a targeted set of oleochemicals from different quality grades tallow
18.30-18.45	O. Psaki, D. Ladakis, A. Koutinas Optimisation of fermentation parameters for enhanced poly(3-hydroxybutyrate) production
18.45-19.00	Ch. Samanides, I. Vyrides Valorization of solid metal waste for the production of platform chemicals (VFAs) through the fixation of CO ₂ using anaerobic granular sludge and homoacetogen bacteria strains

ROOM 4
VIRTUAL
SESSION VIII**Management of specific waste streams, Recycling & Resources Recovery**
Chair: A. Ribeiro, D. Juchelková, V. Kumar Vijay

15.00-15.15	F. Burgoa, R. H.E.M. Koppelaar, D. Hidalgo Enhancing WEEE management using the Circular Digital Thread
15.15-15.30	K.C. Syrmakelis, K.G. Tsakalakis, I.C. Sammas Valorisation of Base Metals contained in fine particles of End-of-Life Printed Circuit Boards with the use of Column Flotation Process
15.30-15.45	S. Gupta, K.K. Pant, G. Corder A greener approach for valuable metal recovery from the waste lithium-ion batteries
15.45-16.00	W.T. Ma, J.L. Hao, C. Zhang, F.Y. Guo, L.D. Sarno Critical Success Factors for circular economy building refurbishment construction and demolition waste management
16.00-16.15	M. Stefanidou, V. Pachta Exploitation of secondary products coming from the perlite process in building materials
16.15-16.30	S.W. Yu, J.L. Hao Mediating effect of corporate environmental responsibility on the relationship between external supervision and pro-environmental behaviour: evidence from renovation sector
16.30-16.45	W. Hua, Y. Xiao Characterizing and modeling single particle crushing behavior of construction and demolition waste (CDW) by accurate shape quantification and peridynamics
16.45-17.00	Jianli Hao, Yao Sun, Jingfeng Yuan, Yi Yang, Hua Zhang Innovative application of digital platform in construction waste supply chain management under circular economy
17.00-17.15	K. Kiskira, I. Lourentzatos, Th. Lymeropoulou, L.A. Tsakanika, Ch. Pavlopoulos, K. Papadopoulou, K.M. Ochsenkühn, G. Lyberatos, M. Ochsenkühn-Petropoulou Biorecovery of scandium from bauxite residue
17.15-17.30	R. Kol, D.S. Achilias, S. De Meester Solvent-based techniques for recycling of plastics

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17.30-17.45	A. Pereira, C. Dias Ferreira Generation, sorting and discarding of waste from clinical analysis laboratories in São Tomé and Principe
17.45-18.00	L. Tayou Nguemna, F. Marzulli, L. Lorini, R. Lauri, M. Majone, M. Villano Continuous process for Polyhydroxyalkanoates production with mixed microbial cultures
18.00-18.15	J. Růžičková, H. Raclavská, S. Koval, D. Juchelková, M. Kucbel, B. Švédová, K. Slamová Fate of microplastics during composting and their leachability
18.15-18.30	K. Hammami, A. Souii, H. Chouchane, A. Cherif, M. Neifar Production of polyhydroxyalkanoates on waste cooking oil employing <i>Pseudomonas rhizophila</i> S211
18.30-18.45	C. Pedrosa, J. Asperilla, P. Campayo, F.R. Beltrán, M.U. de la Orden, J. Martínez Urreaga Incorporation of degraded fractions of PLA waste into PLA to produce biobased and biodegradable materials with improved properties
18.45-19.00	I.S. Lase, K. Kleinhans, J. Dewulf, K. Ragaert, S. De Meester The potential net value creation of recycling non-household end-use plastics waste: A case study from the City of Ghent
19.00-19.15	I.-E. Parigoridi, E. Tsoumani, K. Akrida Demertzis Development of a reliable extraction method for the identification and quantification of 7 phthalate esters in recycled paperboard materials intended for food contact applications
19.15-19.30	A. Hejna, P. Kosmela, W. Żukowska, A. Olszewski, Ł. Zedler, K. Formela, K. Skórczewska, M. Barczewski, R. Barczewski Thermomechanically modified ground tire rubber/zinc borate compositions as fillers for fM30:M47 flexible polyurethane foams
19.30-19.45	G. Z. Beretta, G. Labuto, E. N. V. M. Carrilho Adsorption of paracetamol and caffeine in water by a magnetic bionanocomposite
19.45-20.00	A. S. ElGendy, A. T. Mohamed Effect of pH on the removal efficiency of phenol in oil refinery wastewater using Cobalt Ferrite Nano-composites
20.00-20.15	N. Ardeleanu Applying Circular economy principles in biodiversity protection in Natura 2000 sites

Thursday, 16 June 2022

All times are in Greek Time

8.00-9.30 Registration

9.15-10.45

ROOM 1

**Keynote Speakers,
Chair: K. Moustakas, D. Malamis**

Daniel Tsang, Hong Kong Polytechnic University,
Yard waste biochar for carbon-negative construction towards carbon neutrality

Jae K. (Jim) Park, Department at the University of Wisconsin-Madison,
Sustainable Upcycling of Scrap Tires for Environmental Cleanup and Construction

Su Shiung Lam, International Centre of Universiti Malaysia Terengganu,
Microwave Processing of Waste for Circular Waste Management

Rafael Luque, University of Cordova,
Benign-by-design nanocomposites for energy, environmental and catalytic applications

Marco Baratieri, Free University of Bolzano
Integration of hydrothermal processes for fuel and hydrogen production from digestates

Hussam Jouhara, Brunel London
Waste Heat and Water Recovery from Industrial Flue Gases

10.45-11.15 ☕ Coffee Break

ROOM 1
SESSION IX**SESSION IX: Anaerobic Digestion I**
Chair: D. Bolzonella, M. Loizidou, S. Smith

11.15-11.30	D. Bertasini, F. Battista, N. Frison, D. Bolzonella BioHydrogen and BioMethane production through two stages AD: A European State-of-Art
11.30-11.45	M. Zeppilli, L. Cristiani, G. Fazi, M. Majone, M. Villano Biogas upgrading through the hydrogen production and CO ₂ removal in a microbial electrolysis cell (MEC)
11.45-12.00	P. Tsapekos, B. Khoshnevisan, X. Zhu, L. Treu, P.G. Kougias, I. Angelidaki Anaerobic digestion of urban bio-waste and utilization of digestate as a nutrients source for biogas upgrading
12.00-12.15	H.J. Laavi, M. Nasrullah, E. Sapei, T.T. Piira, H. Pastinen-Kurula, P. Laulumaa Biogas calculation tool for theoretical biomethane production
12.15-12.30	K. Filippou, P.M. Bourcha, A. Zarchaliou, K. Papadopoulou, G. Lyberatos Co-digestion of condensate produced from drying of Household Fermentable Waste and Landfill Leachate for Biogas production through Anaerobic Digestion
12.30-12.45	M. Gaspari, M. Alvarado-Morales, P. Tsapekos, L. Treu, S. Campanaro, I. Angelidaki, P. G. Kougias Inhibitory effect of long chain fatty acid on biogas production via a single pulse: changes in microbial community dynamics and simulation aspects
12.45-13.00	L. Cristiani, L. Leobello, M. Zeppilli, M. Majone Role of the gaseous inlet flow rate in a tubular pilot scale MEC for biogas upgrading
13.00-13.15	D. Hidalgo, J. Castro, D. Díez, J.M. Martín-Marroquín Torrefaction as a pretreatment of lignocellulosic biomass in anaerobic digestion
13.15-13.30	A.B. Yazid, S. Grimes, S. R. Smith Pretreatment of Lignocellulosic Biomass with Tannery Wastewater for Solid-State Anaerobic Digestion
13.30-13.45	J. Walczak, M. Zubrowska-Sudol Effect of hydrodynamic disintegration on the methane potential of the organic fraction of municipal solid waste

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13.35-14.00	Y. Odabaş, Y. D. Yılmazel Enhancement of biomethane production from cattle manure by addition of conductive materials
14.00-14.15	To-Hung Tsui, Kai-Chee Loh, Jingxin Zhang, Yanjun Dai, Yen Wah Tong Techno-economic tradeoffs of bioenergy recovery and system retrofitting in anaerobic digestion infrastructure for expanded treatment service
14.15-14.30	A. Isha, V. Kumar Vijay, P. M. V. Subbarao, R. Chandra A comparative study based on anaerobic digestion of kitchen waste with waste water and fresh water
14.30-14.45	M. Jraou, F. Feki,S. Loukil, S. Sayadi, S. Khoufi Effect of organic loading rate on anaerobic digestion of fruit and vegetable wastes: Process performance and biogas potential
14.30-15.00	Lunch Break

ROOM 2
SESSION X

Agricultural Waste Management, Aerobic Treatment
Chair: N. Tzortzakis, A. Witek-Krowiak, S. Mai

11.15-11.30	S. Papageorgiou, A. Skordilis Food losses and environmental impacts from the Greek agricultural sector and measures to reduce them
11.30-11.45	A. Chrysargyris, G. Toumazou, N. Tzortzakis Application of wine and olive oil production wastes as substrates for the successful cultivation of Chrysanthemum indicum potted flowers
11.45-12.00	M. Christou, Th. Terzopoulos, E. Zafeiris, C. Zafiris Renewable Gas Injection in the DEDA Natural Gas Network in the region of Eastern Macedonia & Thrace
12.00-12.15	A. Scialletti, A. Muscolo, G. Calamarà, L. Lisciandra Sustainability in Agriculture Waste for new organic-mineral fertilizers
12.15-12.30	M. Wzorek, R. Junga, E. Yilmaz Co-pyrolysis of animal manure and waste plastic via TG-FTIR analysis
12.30-12.45	A. Chrysargyris, P. Xylia, N. Tzortzakis Olive-mill and grape-mill waste as a substitute growing medium component for unexplode vegetables production in nurseries
12.45-13.00	N. Salgado-Aristizabal, J.A Poveda-Giraldo, M. Ortiz-Sanchez, S. Piedahita-Rodriguez, E. Ledezma, C.E Orrego Alzate, C.A Cardona Alzate Improving small-scale value chains in tropical forests through residues valorization. The Colombian case of annatto and açai
13.00-13.15	E.R. Oviedo-Ocaña, J. Soto-Paz, V. Sanchez-Torres Incorporation of substrates and inoculums as operational strategies to promote lignocellulose degradation in co-composting of green waste
13.15-13.30	D. Kouvousi Biowaste management in small communities using the home composting method: The case of the Reception and Identification Centre (RIC), Kara Tepe in Lesvos
13.30-13.45	C. Omara-Ojungu, J. Bouček, K. Berchová Bímová, L. Trakal, M. Lukac Microchar an organic biowaste used to remediate agricultural drought soil and increase biomass growth

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13.45-14.00	A. Hanc, T. Hreckova Compostability and vermicompostability of greaseproof wrapping paper
14.00-14.15	D. Kotsia, A.S. Stasinakis, M.S. Fountoulakis Dairy wastewater treatment in vertical flow constructed wetlands using a mixture of perlite and sponge carriers as substrate material
14.15-14.30	T. Manios, I. Daliakopoulos, A. Maragkaki, N. Markakis, G. Daskalakis, I. Sabathianakis On Site Treatment of Food Waste through Mechanical Composting Units: A Techno-economic Evaluation

ROOM 3
SESSION XI

Waste Valorisation II

Chair: J. J. Klemes, R. Luque, J. L. Hao

11.15-11.30	J.M. Jorge, V. Sousa, R. Nogueira Managing carbon waste in a decarbonized industry: Assessing the potential of concrete mixing storage
11.30-11.45	D. Cvijić, S. Sukur, B. Đurić, D. Dragojlović, P. Ilić, S. Gotovac Atlagić Transformation of the Hematite Ultramicroparticles from Red Mud into Other Forms of Iron Oxides
11.45-12.00	U. Bassey, E. Antwi, K. Sarquah, M. Hartmann, H. Satyanarayana, M. Nelles A review of thermal treatment options for single-use, multilayered and composite waste plastics in Africa
12.00-12.15	A. Alcazar-Ruiz, L. Sanchez-Silva, F. Dorado Hydrocarbon selectivity enhancement through catalytic fast co-pyrolysis of almond shell and plastic wastes blends
12.15-12.30	H. Eltohamy, G. Cecere, H. Yiannoulakis, Duong H. Hoang, L. Rigamonti Minerals recovery from beneficiation waste in mining industry: prospective LCA of Grecian Magnesite case study
12.30-12.45	E. Eslami, E. Abdurrahman, G. Ferrari, G. Pataro A case study of Italian tomato processing industry: a comprehensive evaluation from production, water, and energy consumption to waste valorization and LCA point of view
12.45-13.00	A.J Bowles, G.D Fowler Consecutive recovery of three high-value products from waste tyres via pyrolysis in a batch rotary kiln

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13.00-13.15	S. Elia, M. Stylianou, A. Agapiou Cheese whey wastewater treatment by combined Electrocoagulation-Electrooxidation
13.15-13.30	S. Mariyam, T. Al-Ansari, G. McKay Date waste management via pyrolysis: The effect of particle size on thermokinetics and thermodynamics
13.30-13.45	A. Veses, A. Sanchís, J. Daniel Martínez, J. Manuel López, T. García, R. Murillo Scaling-up of waste tyre pyrolysis process from TRL-5 up to TRL-7 using an auger reactor technology
13.45-14.00	M. Kyriakou, S. Parmaki, M. Kallis, M. Christodoulou, A. Ioannou, V. Fotopoulos, M. Koutinas Metabolic responses of <i>Saccharomyces cerevisiae</i> to environmental stresses during bioethanol production using biochar-based biocatalysts
14.00-14.15	V. Gorodko, H. Auer, K. Nikolowski, S. Hippmann, M. Partsch, A. Michaelis Development of a robust resynthesis process for cathode active material (NCM-type) from the leachate of the COOL-process
14.15-14.30	M. E. Silva, S. Maia, L. Simões, I. Brás Circular Bioeconomy - Potential Recovery by the Municipalities of the Compost Produced from Biowaste
14.30-14.45	F. Zilia, J. Bacenetti, M. Sugni, L. Orsi Setting up a circular and sustainable business model for sea urchin

ROOM 4
VIRTUAL
SESSION XII

LIFE 30-year Anniversary – HORIZON EUROPE
Master-class on Horizon Europe: How to win funds for your project?
Innovation - Startups
The experience of LIFE projects
Chair: G. Protopapas, P. Papazoglou

11.15-11.30	G. Protopapas LIFE Programme - Call 2022
11.30-12.00	M. Papastavrou Hints & Tips for Competitive LIFE-Proposals
12.00-12.45	P. Papazoglou Horizon Europe: General Introduction & Structure, Funding Mechanisms & Partner Search, Proposal Preparation Tips

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12.45-13.00	J. Bell Creating startups to solve societal challenges
13.00-13.15	M. Loizidou Research & Innovation through LIFE & HORIZON projects
13.15-13.30	X. Gamisans LIFE BIOGASNET: Bioprocess for simultaneous biogas landfill desulfurization and nitrogen removal from leachate in a pilot plant: Results & Prospects
13.30-13.45	E. Stylianopoulou Presentation of the LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island
13.45-14.00	D. Malamis LIFE-IP CYzero WASTE: LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island: Actions and Timetable

ROOM 1
SESSION XIII

Anaerobic Digestion II
Chair: A. Zouboulis, P. G. Kougias, C. Eskicioglu

15.00-15.15	G.C. Mitraka, K.N. Kontogiannopoulos, A.I. Zouboulis, P.G. Kougias Pre-treatment of sewage sludge to enhance methane production: optimal technology's evaluation through continuous reactor operation
15.15-15.30	A. Garlicka, P. Kupidura, P. Krawczyk, K. Umiejewska, M. Zubrowska-Sudol, A. Muszyński Can image analysis prove the re-flocculation of disintegrated sewage sludge subjected to anaerobic digestion?
15.30-15.45	A. Lanfranchi, B. Chouaia, G. Tassinato, C. Cavinato Microbial community of the anaerobic fermentation of urban waste: effect of the hydrodynamic cavitation pre-treatment
15.45-16.00	N. Papastefanakis, A. Maragkaki, M. Fountoulakis, C. Tsompanidis, T. Manios Improving Anaerobic Co-digestion of Sewage Sludge with Solar Dried Food Waste

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16.00-16.15	Pengyu Dong, Jin Li, D. P.L. Rousseau, S. W.H.Van Hulle Coagulation in combination with anaerobic digestion for enhancement of resource recovery from fecal sludge
16.15-16.30	A. Chatzis, P. Kougias, P. Gkotsis, K. Kontogiannopoulos, E. Peleka, A. Zouboulis Effect of trickling filters in biological methanation
16.30-16.45	To-Hung Tsui, Shuhan Lim, Jingxin Zhang, Yanjun Dai, Yen Wah Tong Bioenergy recovery from sewage sludge in wastewater treatment plant towards energy neutrality: Machine learning and heterogeneous datasets
16.45-17.00	V.P. Aravani, K. Tsigkou, M. Kornaros, V.G. Papadakis Anaerobic co-digestion of agricultural residues produced in Southern Greece during spring/summer season
17.00-17.15	G. Balasundaram, P. Gahlot, A.A. Kazmi, V. Kumar Tyagi Insights into the formation of inhibitory byproducts during the pretreatment of biomass and their effects on anaerobic digestion
17.15-17.30	N. Rey-Martínez, A. Lara, X. You, S. Martínez-Lozano, E. Borràs Assessment of Volatile Fatty Acids production by thermophilic partial anaerobic digestion of blackwater and kitchen waste
17.30-17.45	A. Serra-Toro, S. Vinardell, S. Astals, J. Llorens, J. Mata-Álvarez, F. Mas, J. Dosta Recovery of ammonia from acidogenic fermentation effluents using a hydrophobic membrane contactor
17.45-18.00	F. Sánchez-Soberón, M. Fernandes, G.F. Pantuzza, N. Ratola Presence and fate of volatile methylsiloxanes in anaerobic digesters from WWTPs
18.00-18.15	A. Sarrión, R.P. Ipiñales, M.A. de la Rubia, A.F. Mohedano, E. Diaz Nutrient and energy recovery from chicken meat and bones meal by hydrothermal treatment and anaerobic digestion
18.15-18.30	G.D. Jojoa-Unigarro, S. González-Martínez Effects of pH and reaction time during fermentation on the subsequent methanization of OFMSW
18.30-18.45	A. Paliwal, H.N. Chanakya, S. Dasappa, B.G Namratha, R. Reddy Lignocellulose digestate from the solid-state reactor -methanogen colonization and 'end-of-life' use as inocula source
18.45-19.00	L. Mazzeo, V. Piemonte Bio-aerosol and particulate matter evaluation in presence of a LAB-scale Anaerobic Digester for Volatile Fatty Acids (VFAs) production

ROOM 2
SESSION XIV

Food Waste Management
Chair: D. Malamis, C. Chroni, A. Maragkaki

15.00-15.15	C. Chroni, K. Abeliotis, A. Arfanakou, S. Mani, K. Koryzi, K. Lasaridi Development of the Food Waste Prevention Action Plan for Greece in the framework of the LIFE -IP CEI GR project
15.15-15.30	P. Tsafara, K. Passadis, I. Bousoulas, D. Malamis E.M. Barampouti, S. Mai Stepwise verification and upscaling process for bioethanol production from source separated food waste
15.30-15.45	D. San Martin, J. Ibarruri, N. Luengo, J. Ferrer, A. Garcia-Rodriguez, I. Goiri, R. Atxaerandio, J. Zufía, E. Sáez de Cámarra, B. Iñarra Valorisation strategies of Spent Coffee Ground as an ingredient for ruminants
15.45-16.00	C. Chroni, E. Sigala, C. Boikou, S. Piperis, G. Siakas, K. Abeliotis, K. Lasaridi Food waste generation in Greek households – A quantitative and qualitative approach
16.00-16.15	D. Fotiou, K. Argyropoulos, P. Kolompourda, N. Solomakou, A. M. Goula Valorization of peach peels with an optimized drying process based on ultrasounds pretreatment with ethanol
16.15-16.30	M. Waqas, A. Moureen, N. Khan, A. S. Nizami Untapped potential of food waste derived biochar for the removal of heavy metals from water
16.30-16.45	E. Chezanoglou, N. Kenanidou, C. Spyropoulos, D. Xenitopoulou, E. Zlati, A.M. Goula Encapsulation of pomegranate peel extract in sucrose matrix by co-crystallization
16.45-17.00	Hailin Tian, Miao Yan, Jieyu Zhou, Qinglian Wu, Yen Wah Tong A closed loop case study of food waste management in Singapore
17.00-17.15	A. Papadaki, A. Lekka, M. Giannaki, I.L. Lappa, V. Kachrimanidou, N. Kopsahelis Whey protein edible films grafted with bacterial nanocellulose and essential oil: Characterization and application on cheese products
17.15-17.30	D. San Martin, J. Ibarruri, N. Luengo, J. Ferrer, A. Garcia-Rodriguez, I. Goiri, R. Atxaerandio, J. Zufía, E. Sáez de Cámarra, B. Iñarra Hydrolysis strategies for the valorisation of Grape stems to improve their value in ruminant feeds

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17.30-17.45	J. Raček, T. Chorazy, M. Vršanská, M. Brtnický, L. Mravcová, J. Kučerík, P. Hlavínek Pyrolysis of Food Waste – Solid Carbonaceous Product/Biochar for Material Use
17.45-18.00	F. Sereti, A. Papadaki, E. Eriotou, N. Kopsahelis Sustainable carotenoid synthesis from cheese whey: evaluation of key fermentation parameters and carotenoid profile using two novel Rhodosporidium kratochvilovae strains
18.00-18.15	D. Āriņa, I. Teibe, R. Bendere, Z. Melnalksne Food waste estimation in Latvia
18.15-18.30	C. Bald, B. Iñarra, J. Ibarruri, M. Gutiérrez, D. San Martin, N. Luengo, J. Zufía Production of savoury compounds from different side-streams of the seafood value chain
18.30-18.45	G. Chatziparaskeva, I. Papamichael, G. Pappas, A. A. Zorpas The concept of Food Waste and Food Losses Prevention and Measuring Tools
18.45-19.00	C. Nunes, C. Nunes, R. Pontes, H. Sales, S. Araújo, A. L. Santos, R. Morrão, C. Reis, F. Pavão, A. Bento, J. A. P. Paiva, F. Figueiredo, J. Nunes Cascade use of olive waste towards a highly competitive olive sector: high value byproducts, advanced biobased materials and advanced biofuels integrated production
19.00-19.15	H. Moshtaghian, K. Bolton, K. Rousta Consumer attitudes towards upcycled foods

ROOM 3
SESSION XV**Waste Valorization III**
Chair: K. Moustakas, C. Dias-Ferreira, N. Frison

15.00-15.15	J. Eimontas, N. Striūgas, K. Zakarauskas, I. Kiminaitė Marine biomass and plastic waste thermal utilization over the commercial and biochar catalyst for energy products recovery
15.15-15.30	R.P. Ipiales, A. Sarrion, E. Diaz, A.F. Mohedano, M.A. de la Rubia Improvement of the physicochemical and combustion properties of hydrochars from hydrothermal carbonization of swine manure
15.30-15.45	M. Legan, A. Žgajnar Gotvajn, K. Zupan Biochar: Conversion of waste biomass to building materials with carbon footprint reduction potential
15.45-16.00	Y. Zeslase Belete, A. Aregawi Gebrekidan, R. Yahav Spitzer, R. Posmanik, A. Gross Environmentally sustainable treatment and valorization of manure-based digestate using hydrothermal carbonization
16.00-16.15	D. Cubides, X. Guimerà, I. Jubany, X. Gamisans NO absorbents as transfer vectors for biological treatment
16.15-16.30	S. Carpentieri, M. Iannuzzo, G. Ferrari, G. Pataro Optimization of Pulsed Electric Fields-Assisted Extraction of phenolic compounds from white and red grape pomace using Response Surface Methodology
16.30-16.45	B. Iñarra, J. Ibarruri, C. Bald, M. Gutierrez, D. San Martin, N. Luengo, J. Zufia Production of bioactive peptides from salmon processing side-streams
16.45-17.00	M. Haj-Zaroubi, N. Mattar, H. Azaizeh Olive Mill Wastewater Transformation From Pollutant To Sun Protection Paste
17.00-17.15	C. Torri, V. Stefanelli, Y. Küçükaga, B. Galaverni, A. Seritti, A. Facchin Hyperthermophilic fermentation of Food Waste allows the reliable recovery of Volatile Fatty Acids (VFA) by means of stripping
17.15-17.30	O.Z. Wada, U. Onwusogh, A.S. Vincent, H.R. Mackey Valorisation of Purple Non-Sulfur Bacteria Biomass from Anaerobic Treatment of Fuel Synthesis Process Wastewater to Aquaculture Feed: A Means of Enhancing Food Security in Arid Climes
17.30-17.45	P. Xypolias, S. Vakalis, I. Daskaloudis, D.F. Lekkas Hydrothermal Carbonization of Anaerobic Digestate from Food Waste/ Agrowaste in Lesvos Island

Thursday, 16 June 2022

17.45-18.00	A. Muñoz-Castillo, S. Bueno-Rodríguez, L. Pérez-Villarejo, D. Eliche-Quesada Synthesis of sodium waterglass from rice husk ash as an activator to produce slagbased alkali-activated cements
18.00-18.15	A. Castro-Fernández, S. Balboa, V. Paramá, B. Álvarez, C. Castro-Barros, J.M. Lema, A. Taboada-Santos Thermal hydrolysis pre-treatment has no positive influence on VFA production from sewage sludge
18.15-18.30	L. Miron, G. Monteverchi, A. Antonelli, M. Thomas Extraction and functional properties of proteins from black soldier fly (<i>Hermetia illucens</i>) reared on canteen waste
18.30-18.45	P. Morone, E. Imbert, G. Yilan The pursuit of an ethical, circular and sustainable fashion sector: the Cartiera case study
18.45-19.00	S. Zuhara, H. R Mackey, G. McKay Utilizing waste derived aluminosilicate for water treatment: Pyrolysis and adsorption modelling
19.00-19.15	J. A. Bogas, A. Carriço, A. Tenza-Abril Microstructural characterization of pastes produced with recycled cement

ROOM 4
VIRTUAL
SESSION XVI

Tools for waste management, Recycling & Resources Recovery
Chair: U. Yetis, L.M. Queiroz, Di Wang

15.00-15.15	T. Pilevneli, E. Kucuk, U. Yetis Improving Waste Management by Providing Audit Capability to the Waste Declaration System
15.15-15.30	H. Monteiro, B. Moura, J. Almeida, R. Cardoso, Â. Fernandes, L. Barros Life cycle assessment of Vitamin D2-based extract from Mushroom waste
15.30-15.45	B. Moura, H. Monteiro, J. Almeida, E. Pereira, L. Barros Life cycle assessment of the production of natural colorant extracts from Curcuma longa L.
15.45-16.00	N. Ferronato, R. Paoli, F. Romagnoli, G. Tettamanti, D. Bruno, V. Torretta Life cycle assessment of organic waste treatment by the larvae of Hermetia illucens
16.00-16.15	A. Peppas, C. Politi, M. Taxiarchou Circular systemic solutions and regional innovation scheme
16.15-16.30	F. Demichelis, C. Martina, D. Fino, T. Tommasi Life cycle assessment of biological and mechanical processes of valorisation of absorbent hygiene products
16.30-16.45	P. Llanquileo-Melgarejo, M. Molinos-Senante Assessing of the impact recycling. A comparison on the change in productivity and eco-productivity of electronic waste (e-waste): a case study for Chile
16.45-17.00	L.J. Valencia-Hernández, J.E. Wong-Paz, M.L. Chávez-González, J.A. Ascacio-Valdes, J.C. Contreras-Esquivel, L. Sepúlveda, R. Rodríguez-Herrera, C.N. Aguilar A comprehensive analysis of the fungal degradation of procyanidins as a tool for coffee pulp detoxification
17.00-17.15	C. Riccardi, Di Wang, A. Cannone Falchetto Effect of bio materials and polymer modifiers on the performance properties of recycled asphalt binders
17.15-17.30	F. Todaro, R. Annelio, S. De Gisi, M. Di Clemente, A. Fiorente, A. Petrella, M. Notarnicola Stabilization/solidification of hazardous powdered waste with ordinary Portland and sulfo-aluminate cements: a pilot study

Thursday, 16 June 2022

17.30-17.45	M. Canitez, S. Gulcimen, E. Karacetin, N. Uzal Water consumption Ecotoxicity and Global Warming Potential Assessment of Sugar Beet Production Using Different Irrigation Sources
17.45-18.00	A. Piemonti, A. Conforti, L. Cominoli, A. Luciano, S. Sorlini, G. Plizzari Influence of Electric Arc Furnace Slags on the mechanical properties of concrete
18.00-18.15	M. Jain, S. Aiman Khan, K. K. Pant, Z. M. Ziora, M. A. T. Blaskovich Electronic waste derived novel carbon aerogel for removal of phenol and 2,4-dichlorophenol from wastewater
18.15-18.30	T. Pilevneli, B. Ucar, G. Capar An evaluation of water footprint of bread wastes in Turkey
18.30-18.45	A.-J. Klasinc Blockchain for solid waste management and green cryptocurrencies in cities
18.45-19.00	Nurul Nazleatul Najiha Mohd Nazif, Shazwin Mat Taib, Mohd Fadhil Md Din, Nurfarhain Mohammed Rusli, Norasikin Saman Refrigerant Management By Using IoT Technology And Co-Benefit In Energy Saving At Malaysia Food Base Sector
19.00-19.15	A. Idrissi, R. Benabbou, J. Benhra, M. Elhaji A smart system to improve solid waste collection and vehicle routing problem: Case of Mediouna's landfill
19.15-19.30	E. Yilmaz, E. Altiparmak, F. Dadaser-Celik, N. Ates Removal of Acetochlor and Metolachlor by Adsorption Process
19.30-19.45	C. Antoniades, D. Mavrommati, A. Antoniades, A. Tsoukala Municipal Waste Landfill [Dump site] at Thira Island (Santorini) - Impact on environment - Administrations negligence to situate a legal and environmentally friendly Residue Municipal Waste Landfill (RMWL) - Proposal for locating a RMWL on the island
19.45-20.00	M. Almokdad, R. Zentar Assessing the leachate toxicity of materials based on sediments in road sector
20.00-20.15	R. Nasr Bottom-up alternatives to persist top-down deficiencies in exceptional condition: Learning from recycling practices in the context of Lebanon

ROOM 1
SESSION XVII

Waste-to-Energy & Energy from Waste

Chair: M. Loizidou, M. Baratieri, L. Lombardi, A. Bourtsalas

9.00-9.15	A. Bourtsalas The role of fuel and energy recovery from non-recyclable materials in circular/low carbon economy policies
9.15-9.30	G. Mancini, L. Lombardi, A. Luciano, D. Bolzonella, D. Fino WtE in South Mediterranean Regions: how to reduce the gap while increasing the sustainability through the Industrial Symbiosis
9.30-9.45	A. Márquez, I. Ortiz, J.M. Sánchez Valorization of municipal solid waste through pyrolysis and applications of its products
9.45-10.00	J. Haydary, P. Šuhaj Two stage pyrolysis/split product gasification of refused-derived fuel (RDF)
10.00-10.15	N.T. Leokaoke, J.R. Bunt, H.W.J.P. Neomagus Chemical and physical modifications of coal and torrefied biomass blends during high pressure pyrolysis
10.15-10.30	T. M. Ismail, K. Yoshikawa, Lu Ding, K. Ramzy, M. Abd El-Salam Waste Magnetic Pyrolysis Energy Conversion Reactor
10.30-10.45	M. Laghezza, S. Fiore, F. Berruti Techno-economic assessment of the pyrolysis of rubber wastes
10.45-11.00	J. Čespiva, J. Skrínský, J. Vereš, M. Wnukowski Solid recovered fuel gasification in sliding bed reactor
11.00-11.15	A. Jančauskas, N. Striūgas, K. Zakarauskas, R. Skvorčinskienė, J. Eimontas Municipal solid wastes (MSW) gasification process in fixed bed updraft conditions
11.15-11.30	E. Voutsas, A. Zitouni-Petrogianni Modeling, Optimization and Cost Analysis of Plasma Gasification for the Treatment of Solid Wastes
11.30-11.45	S. Vakalis, K. Moustakas, P. Gikas, M. Loizidou Developing the first commercial MSW gasification facility for the case of Crete - Challenges and prospects

Friday, 17 June 2022

11.45-12.00	COFFEE BREAK
12.00-12.15	A. Tamošiūnas, M. Aikas, D. Gimžauskaitė, R. Uscila, V. Snapkauskienė Biomass gasification to hydrogen-rich syngas by thermal arc discharge plasma
12.15-12.30	S. Piazzì, D. Antolini, L. Menin, M. Baratieri, F. Patuzzi Small-scale producer gas upgrading: hydrogen yield enhancement over a char bed reactor
12.30-12.45	J. Ryšavý, T. Kaszová, J. Horák, T. Ochodek Potential of Pt-based honeycomb catalyst usage during the pistachio shell combustion
12.45-13.00	R. Yahav-Spitzer, A. Gross Hydrothermal carbonization of raw human excreta- effect of process severity on hydrochar properties
13.00-13.15	M.E. Silva, I. Brás Assessment of Energetic Potential from Automobile Industry Textile Wastes – Potential for RDF Production
13.15-13.30	R. Borooh, E. Cordioli, D. Antolini, M. Pecchi, S. Piazzì, F. Patuzzi, M. Renzi, M. Baratieri Forest residues valorisation for energy purposes through a small-scale CHP system
13.30-13.45	P. Postacchini, L. Menin, S. Piazzì, F. Patuzzi, M. Baratieri Syngas upgrading to biomethane via co-digestion with brewery wastewater
13.45-14.00	I. E. Achouri, N. Abatzoglou, S. B. Karakache Fischer-Tropsch Synthesis for the production of biofuels with a low ILUC-risk
14.00-14.15	A. G. Capodaglio Circular Economy implications of microalgal-based wastewater treatment: materials and energy recovery pathways
14.15-14.30	K. Tsimaras An effort to present a Hydrogen regulatory framework for Greece after 2030
14.30-14.45	E. Yilmaz, R. Junga, M. Wzorek, S. Bayram Effect of torrefaction on energy properties and thermal behaviour of millet stalk
14.15-15.00	Lunch Break

ROOM 2
SESSION XVIII

Management of Specific Waste Streams, Recycling & Resources Recovery
Chair: M. C. Zanetti, F. Battista, F. Mauriello, E. Ranieri

8.45-9.00	N. Curado Correia, S. Sousa, R. Santos Waste management options for end of life wind turbine blades
9.00-9.15	P. M.S. Sousa, L. M. Martelo, M. M.S.M. Bastos, A. T. Marques, H. M.V.M. Soares A disruptive and profitable process for recovering gold and copper from waste printed circuit boards
9.15-9.30	S. De Meester Recycling flexible packaging; headache or an opportunity for the circular economy?
9.30-9.45	R. Mende, D. Kaiser, M. Bertau Selective Recovery of Lithium from different spent Lithium-Ion Batteries
9.45-10.00	M. Bruno, S. Fiore Material flow and economic analyses of Lithium-ion batteries recycling processes in Europe
10.00-10.15	B.F. Hansel, S. Pavón, C. Pätzold, M. Bertau Recycling of LiPF6 from lithium-ion batterie black mass
10.15-10.30	G. Meylan, M. Schmid Stimulating circular public procurement: The case of second-life batteries for traction applications
10.30-10.45	P. Kafasis Management of edible oils and fats from households
10.45-11.00	G. Bonifazi, O. Trotta, G. Capobianco, S. Serranti Classification of post-earthquake building waste through Hyperspectral imaging approach
11.00-11.15	A. Silva, R. Nogueira, J. Alexandre Bogas Improving cement waste recycling by carbonation: The feasibility of a Short Carbonation Process
11.15-11.30	B. Ruffino, M. Guglielmino, F. Bonino, M.C. Zanetti Increasing the recovery of materials from automobile shredder residues through a novel recovery process
11.30-11.45	J.D. Martínez, A. Veses, A. Sanchís, J.M. López, T. García, R. Murillo Recovering value-added hydrocarbons from pyrolysis of end-of-life tires: fractioning the derived oil in a pilot scale distillation plant

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11.45-12.00	D.S. Achilias (Thermo)chemical recycling of bio-based and nanocomposite polymers in the circular economy
12.00-12.15	A. Benedetto Mas, S. Fiore, S. Fiorilli, F. Smeacetto, M. Santarelli, I. Schiavi Preliminary tests for lanthanum and cobalt recovery from waste SOCs cathodes
12.15-12.30	W. Zeb, M. Roosen, P. Knockaert, J. Hogie, U. Kresovic, K. Van Geem, S. De Meester Separation of short carbon-chain precursor molecules from post-consumer plastic pyrolysis oil using fractional distillation
12.30-12.45	A. Nanni, M. Colonna, L. Crosetta, M. Parisi, D. Colombo A new system for the recovery and the recycling of thermoplastic polyurethanes (TPU) from ski boot equipment
12.45-13.00	E. J. Luna Barrios, S. De Meester, H. Sardon Challenges and opportunities in the chemical recycling processes of plastic waste
13.00-13.15	E. Carrieri, S. De Meester Solvent-based recycling towards recovery of TiO ₂ from waste plastics
13.15-13.30	S. Carvalho, A. Lorena, C. Silva, R. Semeano, P. Ferrão Technical and Environmental Performance of Material Recovery Facility for Separately Collected Packaging Waste
13.30-13.45	L. Milius, C. Dalhammar The role of recycling companies in the circular economy: Opportunities and challenges towards a materials management transformation
13.45-14.00	L. Lorini, M. Santini, S. Alfano, F. Valentino, A. Martinelli, M. Villano, M. Majone Biodegradability evaluation of waste-derived Polyhydroxyalkanoates
14.00-14.15	A. Karamanov, P. Paunović, E. Karamanova, B. Ranguelov, G. Avdeev, A. Grozdanov, D. Karashanova New glass ceramic by Fe Ni wastes with improved structure and properties
14.15-14.30	V. Sousa, J.A. Bogas, S. Real, I. Meireles Reducing the energy consumption for recycling cement: shifting from a wet method to an air-blowing method
14.30-14.45	Kim Phan, S. Üğdüler, L. Harinck, V. Van Speybroeck, K. De Clerck, S. De Meester A Combined Experimental and Theoretical Study on Textile Recycling: the Dissolution of Elastane

ROOM 3
SESSION XIX**Bioprocesses, Biorefineries in waste management II**
Chair: P. Champagne, S. Smith, C.A. Cardona Alzate, J. Dosta

9.00-9.15	R. Lo Coco, A. Zuliani, F. Battista, D. Bolzonella, N. Frison Extraction and purification techniques for the recovery of bio-based volatile fatty acids and polyhydroxyalkanoates from organic waste: a State-of-Art
9.15-9.30	J.C. Solarte-Toro, M. Ortiz-Sanchez, C.A. Cardona Alzate Life cycle sustainability assessment of plantain-based biorefineries in emerging industrial countries: Colombia case study
9.30-9.45	G. Zoppi, E. Tito, I. Bianco, G. Pipitone, S. Bensaid, R. Pirone Hydrothermal liquefaction and aqueous phase reforming coupling for the production of biofuels: a life cycle assessment
9.45-10.00	Y. Küçükağa, A. Facchin, C. Torri, S. Kara Inorganic Gasses into Organic Acids for Polyhydroxyalkanoates Production: An Integrated Lab-Scale System for the Syngas Fermentation Coupled PHA Production
10.00-10.15	E. Tito, G. Zoppi, G. Pipitone, A. H.A. Monteverde Videla, R. Pirone, S. Bensaid Unraveling HTL mechanisms of carbohydrates-proteins interactions
10.15.-10.30	A. Maragkaki, C. Tsompanidis., K. Velonia, T. Manios Pilot-Scale anaerobic co-digestion of food waste and PLLA
10.30-10.45	D. Mladenović, J. Grbić, A. Đukić-Vuković, L. Mojović Improvement of enzymatic saccharification of corn cob by microwave-assisted peroxide treatment
10.45-11.00	J.C. Solarte-Toro, C.A. Cardona Alzate Sustainability analysis of biorefineries based on country socio-economic and environmental context
11.00-11.15	A. de Espindola, A. Ponche, P. Dutournié Impact of ultrafiltration process in the lysozyme antibacterial activity
11.30-11.45	K. Chojnacka, A. Gersz, A. Witek-Krowiak Multicomponent hydrogel fertilizer technology for sustainable agriculture
11.45-12.00	COFFEE BREAK

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12.00-12.15	B. Ruffino, G. Campo, A. Cerutti, G. Scibilia, M. De Ceglia, M.C. Zanetti Combined production of biogas and volatile fatty acids from a pure primary sludge: preliminary results of a pilot test
12.15-12.30	D. Ladakis, S. M. Ioannidou, I. K. Kookos, K. Triantafyllidis, A. Koutinas Techno-economic analysis and life cycle assessment for the production of lignin-based adhesives from softwood kraft lignin via base-catalysed depolymerization
12.30-12.45	M. Menini, A. Zuliani, R. Lo Coco, F. Battista, D. Bolzonella, N. Frison Pure culture bio-capturing dissolved CO ₂ at different potentials in microbial electrosynthesis cell (MES)
12.45-13.00	A. Ghaderikia, Y.D. Yilmazel The Impact of Conductive Material Amendment on the Performance of Anaerobic Digestion-Microbial Electrolysis Cell (AD-MEC) Systems
13.00-13.45	G. Bulkan, S. Sitaresmi, G.T. Yudhanti, R. Millati, R. Wikandari, M. J. Taherzadeh Enhancing and Inhibitory Effects of Fruit Waste Bioactive Compounds on Filamentous Fungi
13.45-14.00	E. Ranieri, F. Ranieri, A. C. Ranieri Chromium tolerance and phtoextraction by Phyllostachys Pubescens
14.00-14.15	H. Azaizeh, H. N. Abu Tayeh, R. Schneider, A. Klongklaew, J. Venus Production of lactic acid from different lignocellulose biomass for polylactic acid as a biodegradable plastic
14.15-14.30	A. Romero, A. Mayor, R. Barat, E. Mena, C. Biel, M. Carreras, X. Petit, J.L. Cortina, C. Valderrama, C. Castro, M. Arnaldos Turning wastewater treatment plants into biorefineries: global value chain from bioresources to valuable products

ROOM 4
VIRTUAL
SESSION XX

Waste Valorisation IV
Chair: F. Dilek, G. Labuto, E. N. V. M. Carrilho, K.J. Dussán

8.45-9.00	V. Kumar Tyagi, A. Kapoor, P. Arora, A.A. Kazmi Municipal solid waste biorefinery: Case study of 100 TPD mechanical-biological treatment plant
9.00-9.15	M. Kumar Awasthi Resource recovery and biorefinery potential of apple waste towards to circular bioeconomy
9.15-9.30	O. Ozcan, S. Qadri, M. Ozdemir, R. Alabdullah, E. Sahinkaya, N. Uzal Pre-treatment of Municipal Wastewater Using Direct Ceramic Membrane Filtration for Agricultural Reuse
9.30-9.45	Changjiang Kou, Zikai Chen, Aihong Kang, Zhengguang Wu, Anan Liu Performance evaluation of hot mix asphalt containing treated recycled concrete aggregates
9.45-10.00	M.A. Chartodiplomenou, E.E. Golia, O.D. Kantzou, S. Papadimou, N. Tsiropoulos, V. Antoniadis Depiction of the adsorption of Copper and Cadmium with Langmuir and Freundlich isotherms
10.00-10.15	Sheng Sheng, Yan Song, Jiao Wang, Fu-An Wu, Jun Wang Fatty acid synthases gene is essential for the synthesis of fatty acids in insect parasitoids
10.15-10.30	Cheng-Hai Yan, Dan Zhang, Xiao-Meng Xun, Lu-Chan Gong, Shuai You, Jun Wang Preparation and digestion characteristics of silkworm pupae oil microemulsion
10.30-10.45	V.H. Junkes, G.G. Lenzi, P. H. Rodrigues Waste valorization for the concrete block production: a sustainable solution
10.45-11.00	N. Caetano, M. Santos, W. Júnior, A. P. Marques Valorization of corn stover from phytoremediation of heavy metal contaminated soils through bioethanol production
11.00-11.15	Qing-Bo Tu, Tian-Qi Wang , Ping Li, Wei-Hong Zhou, Sheng Sheng, Jun Wang, Fu-An Wu Extraction process of ferulic acid from wheat bran with Low eutectic solvent
11.15-11.30	Xiao-Meng Xun, Ji-Yao Nian, Ji-Long Wu, Cheng-Hai Yan, Jun Wang Absorption characteristics of silkworm pupae peptides treated by ultrasound and irradiation based on Caco-2 cell model

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11.30-11.45	Yan Song, Feng-Ming Gu, Jun Wang, Fu-An Wu, Sheng Sheng Phoxim acts as an environmental stress for insect parasitoid wasp
11.45-12.00	T.S. Borges, L.M. Queiroz, S.L.C. Ferreira, N.M. José Synthesis of natural coagulant from Anacardium occidentale and application to remove metallic pollutants from water
12.00-12.15	S. Greses, E. Tomás-Pejó, C. González-Fernández Organic waste valorisation into bioenergy and bioproducts through a cascade combination of bioprocesses
12.15-12.30	E. Kanellou, E. Dedeletaki, C. Vaitsis, P.K. Pandis, G. Sourkouni, A. Zorpas, C. Argirasis Sonochemical synthesis of metal oxides/sulfides and their composites for the sonophotocatalytic degradation of organic pollutants
12.30-12.45	Van-Bien Dao, Yuan-Wei Chen, Chu-Ching Lin Agronomic waste-derived biochar for concurrent stabilization of multiple heavy metals in agricultural soil: Effect of feedstock variety and pyrolysis temperature
12.45-13.00	Johnny Sik Chun Lo, Christopher Yu Huang Chao, Sharhrat Singh Chopra, Walid Daoud, Shao-yuan Leu, Zhi Ning, Chi Yan Tso, Chak Keung Chan, Shixing Tang, Hau Him Lee, Irum Firdous, Carol Sze Ki Lin Food Waste-derived Medical Textiles via Electrospinning for Healthcare Apparel and Personal Protective Equipment
13.00-13.15	Can-Yang Shi, Xiang-Yu Shen, Ji-Long Wu, Yu-Fan Zhan, Shuai You, Lu-Chan Gong, Jun Wang Polymer modification improves the stability of xylanase-polymer conjugates as biological interface catalysts in agricultural waste biorefinery
13.15-13.30	Dinh Ngoc Giao Ngo, Xiang-Ying Chuang, Chin-Pao Huang, Chihpin Huang Converting Agricultural Wastes to Biochar: From Good Agricultural Waste Management Practice to High-Potential Use of Biochar as Heterogeneous Catalyst
13.30-13.45	N. Solomakou, A. Drosaki, G. Zamvralidis, A.M. Goula Adsorption of phenolic compounds from olive mill wastewaters on spent coffee grounds: Isotherms, kinetics, pure phenols adsorption
13.45-14.00	P.S.C. Aslanidis, S.G. Papadimou, O.D. Kantzou, M.A. Chartodiplomenou, E.E. Golia Impacts of heavy metals on sustainability in Volos, Greece: reality or urban myth?
14.00-14.15	M.G. dos Santos, D.D.V. Silva, K.J. Dussán Levulinic acid production from lignocellulosic biomass using lignin-catalyst

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- 14.15-14.30 T. G.S. Guimarães, R. Santos Silva, A. A. Lira, M. Leonan, M. H. González, E. N.V.M. Carrilho, G. Labuto
Synthesis and characterization of biobased carbons modified with natural deep eutectic solvent (NADES) for dipyrone removal from aqueous medium
- 14.30-14.45 K. C.H. Bezerra, J. R. Nascimento, T. D. Martins, S. G. Lemos, E. N.V.M. Carrilho, C. de A. Rodrigues, G. Labuto
Removal of reactive dyes from bichromatic textile effluent by yeast biomass decorated with magnetite nanoparticles

ROOM 1
SESSION XXI**Recovery of materials from wastewater, sludge -
Sludge Management & Energy from waste
S. W. H. Van Hulle, A. Capodaglio, K. Aboudi**

15.00-15.15	F. Corona, S. Sanz-Bedate, J.M. Martín-Marroquín, D. Hidalgo, J. Castro, L. Garrote Closing waste water cycles for nutrient recovery
15.15-15.30	K. Aboudi, S. Greses, E. Tomás-Pejó, C. González-Fernández Hydraulic retention time as an operational tool for the production of high value-added bioproducts via anaerobic fermentation of carbohydrate-rich organic wastes
15.30-15.45	A. García-Díaz, J.S. Bueno-Rodríguez, L. Pérez-Villarejo, D. Eliche-Quesada Sustainable management of oil refining sludge by means of geopolymers production
15.45-16.00	F. Valentino, P. Pavan, A. Dell'Olivo, L. Lorini, M. Majone, D. Bolzonella, M. Gottardo From sewage sludge to polyhydroxyalkanoates: a case study at pilot scale level
16.00-16.15	H. Byliński, A. Kasinath, M. Szopińska – Skwarek, A. Łuczkiewicz, S. Fudala – Książek Cosubstrate strategy for enhancing biomass degradation during low-thermal pre-treatment
16.15-16.30	A.G. Capodaglio Sewage Sludge Disposal: State-of-the-Art Technologies for Sustainable Energy and Resources Recovery
16.30-16.45	P. Gautam, D. Salunke Sustainable utilization of brine sludge for making bricks: An approach towards circular economy
16.45-17.00	S. Gyarakis, T. Manios, E. Vryllakis Co-composting of sewage sludge with plant residues: The case study of Rethymno WWTP
17.00-17.15	H. Kominko, K. Gorazda, Z. Wzorek Physicochemical characterization of sewage sludge ashes in terms of phosphorus recovery
17.15-17.30	Huan Liu, I. Alper Basar, C. Eskicioglu Incorporating hydrothermal liquefaction into wastewater treatment plants: impacts on the wastewater treatment processes and management of hydrochar
17.30-17.45	A. Aregawi Gebretsadkan, R. Bernstein, A. Gross Adsorption of ammonium from AnMBR effluent using activated hydrochar as potential fertilizer

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17.45-18.00	J. F. Morales Arteaga, A. Kaurin, D. Lestan Extraction of toxic metals from sewage sludge digestate by EDTA in a closed-loop process
18.00-18.15	P. M. Binder, E. Blázquez Ribas, N. Guerra Gorostegi, I. Hidayat, L. Paredes Barro, L. Llenas Argelaguet, N. Frison, M. Ballottari, S. Cazzaniga, F. Fatone, S. Ponsá Salas Innovative multiple resource recovery pathways from EBPR wastewater treatment derived sludge
18.15-18.30	F.E. Kutlar, Y.D. Yilmazel Use of low-cost raw materials for the recovery of phosphorus and nitrogen from biogas plant effluents via struvite crystallization
18.30-18.45	I. Boševski, A. Žgajnar Gotvajn Energy recovery of antibiotic-contaminated waste sludge
18.45-19.00	D. Liakos, K. Triantafyllidis, T. Kokkalis, L. Ntoufas, S. Bezergianni 2 nd generation bio-crude oil via hydrothermal liquefaction of agricultural wastes
19.00-19.15	E. Emmanouilidou, S. Mitkidou, A. Agapiou, N. Kokkinos Solid waste biomass as a potential feedstock for sustainable aviation fuel production
19.15-19.30	D. Abdel Nasser, M. El Zayat A Review on Landfill Gas Production Treatment Techniques and its Effect on Circular Economy
20.00-20.30	Closing Session with the active participation of chair persons – Poster award ceremony – Announce ment of the place for the 2023 10th International Conference on Sustainable Solid Waste Management

ROOM 2
SESSION XXII**Marine Litter, Plastics & Bioplastics**
Chair: S. De Meester, S. Vouyiouka, E. Barampouti

15.00-15.15	Y.V. Fan, C.T. Lee, J.J. Klemeš, P. Ocłoń Plastic Waste Forecasting and Potential Application in Renewable Energy System and Building for Environmental Footprint Mitigation
15.15-15.30	M. Tsakona, I. Ruchevska, S. Heerema The role of the informal recycling sector in reduction of the plastic pollution and recommended policy changes
15.30-15.45	L. Bartolucci, S. Cordiner, G. Costa, S. Franceschin, F. Lombardi, M. Mercurio, V. Mulone Analysis of potential recycling/recovery strategies for bioplastic materials at their end of life based on their chemico-physical properties
15.45-16.00	S. Ügdüler, K. M. Van Geem, K. Ragaert, J. De Wilde, S. De Meester Towards closed-loop recycling of multilayer and coloured PET plastic waste
16.00-16.15	M. Roosen, T. De Somer, R. Demets, K. M. Van Geem, A. Dumoulin, S. De Meester Towards improved deodorization of post-consumer plastic waste: Identifying the industrial hurdles
16.15-16.30	M. Lucas, O. Fauny, C. Dufau, J. Voisin Help from above, satellite technology to track marine litter
16.30-16.45	M. Van Melkebeke, C. Janssen, S. De Meester Development of microplastic remediation techniques from marine sediments
16.45-17.00	G. Kalčíkova, U. Rozman, B. Klun Aquatic hazard assessment of Bakelite microplastics
17.00-17.15	B. Ülger-Vatansever, T.T. Onay, B. Demirel Evaluation of bioplastics biodegradation under simulated landfill conditions
17.15-17.30	K. Synani, K. Abeliotis, T. Manios, K. Velonia, K. Lasaridi Preliminary environmental assessment for a pilot-scale bioplastic production unit
17.30-17.45	A. Marchetti, G. Salvatori, S. Cacia, M. Palhas, J. Fradinho, M.A.M. Reis, M. Villano Mixed culture polyhydroxyalkanoates accumulation with synthetic and real feedstocks

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17.45-18.00	Y.D. Hernandez-Charpak, T.A. Trabold, C.L. Lewis, C. A. Diaz Biochar as a processing additive in poly(butylene adipate-co-terephthalate) (PBAT)
18.00-18.15	T. Yılmaz Nayır, S. Konuk, H.N. Çiftci, B. Küçük, S. Kara Polyhydroxyalkanoate production from yeast industry wastewater using mixed microbial culture
18.15-18.30	L. Cesoniene, D. Sileikiene Analysis of hazardous plastic waste generated during the COVID-19 pandemic
18.30-18.45	A. M. Pedraza Torres, X. Andrade Cares, J. C. Sanchez-Hernandez Impact of biochar produced from plastic-eating insect frass on microbial hotspots created by earthworms
18.45-19.00	R.S.M. Denolf, J. Hogie, S. De Meester Distribution of organic additives such as plasticisers during dissolution-precipitation polymer recycling
19.00-19.15	K. Haarstad, J. Barlindhaug The occurrence and removal of the fluoro alkyl (PFAS) substances under boreal and arctic conditions
19.15-19.30	H. Hinrichsen Treating PFAS Contaminated Landfill Leachates Using Only Air - Evaluation and presentation of bench scale trials and Two full Scale Projects
19.30-19.45	S. Dudek, D. Kołodyńska Arsenic removal by the iron oxide sorbent with quaternary ammonium groups modified with lanthanum(III) ions
19.45-20.00	P. Gautam, S. Kumar Comparative assessment of different advance technologies for treatment of landfill leachate

ROOM 3
SESSION XXIII**Waste Valorisation V**
Chair: K. Moustakas, G. Mancini, S. Vakalis

15.00-15.15	E. Paone, M. Miceli, A. Malara, G. Ye, E. Mousa, E. Bontempi, P. Frontera, F. Mauriello From Spent Lithium-Ion Batteries to an Heterogeneous Co-Ni Catalyst for the Reductive Upgrading of Biomass-derived furanics
15.15-15.30	D. Kostopoulos, A. Maragkaki, K. Velonia, T. Manios Production of Lactic acid as a Sustainable Approach to Valorize organic waste
15.30-15.45	H. Feijoo, A. Arias, M.T. Moreira Closing the loop through the valorization of glycerol as a substrate in the production of hyperthermophilic β -glucosidase. A Life Cycle Perspective.
15.45-16.00	C. Pavlopoulos, K. Papadopoulou, G. Lyberatos Photocatalytic Hydrogen production using recovered Silicon from End of Life (EoL) photovoltaic panels
16.00-16.15	L. di Bitonto, E. Scelsi, C. Pastore Optimization model for the extraction of lipids from urban sewage sludge
16.15-16.30	O. Vittou, M.-V. Sarafidou, E. Stylianou, D. Ladakis, C. Pateraki, A. Koutinas Valorisation of sugar beet pulp for the production of poly(3-hydroxybutyrate) and poly(3-hydroxybutyrate-co-3-hydroxyvalerate)
16.30-16.45	D. Urbanci, D. Goricanec, M. Simonic Heavy metals removal from wastewater by applying natural clay as adsorbent
16.45-17.00	S. Balachandran, J. Hogie, E. Meers, S. De Meester Energy optimization of the evaporation process towards upconcentration of bio-based carboxylic acids
17.00-17.15	E. Stylianou, N. Giannakis, C. Argeiti, E. Titiri, K. Filippi, C. Pateraki, A. Koutinas Alkaline pretreatment of spent coffee grounds for microbial oil production using the oleaginous yeast strain <i>Lipomyces starkeyi</i>
17.15-17.30	G. Montevercchi, L.I. Macavei, G. Pinotti, S. D'Arco, E. Zanelli, S. Buffagni, F. Masino, L. Maistrello, A. Antonelli Seasonal variance of HO.RE.CA. leftovers as a feeding substrate for black soldier fly (<i>Hermetia illucens</i> L.) larvae

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17.30-17.45	M. Novotný, J. Raček, T. Chorazy, P. Hlavínek The use of Biochar made from Biomass and Biosolid as a Substrate for Green Infrastructure
17.45-18.00	Lei Lyu, Di Wang, Rui Li, Jianzhong Pei Rheological and Chemical properties of Asphalt Binder Modified by Cross-metathesized Crumb Rubber
18.00-18.15	V. D'Ambrosio, C. Pastore Hexanoic and levulinic acids esterification for ethyl and hexyl esters production by using $\text{AlCl}_3 \cdot 6\text{H}_2\text{O}$ as a catalyst
18.15-18.30	S. Shaikh, N Rashid, H.R. Mackey Influence of nitrogen on simultaneous treatment of fuel synthesis wastewater and PNSB biofilm formation for resource recovery
18.30-18.45	S. Fraterrigo Garofalo, N. Cavallini, R. Destefano, M. Micera, C. Cavagnero, A. Botto T. Tommasi, D. Fino Optimization of supercritical carbon dioxide extraction of rice bran oil and γ -oryzanol using Multi-Factorial Design of Experiment
18.45-19.00	Muhammad Zalkifal, Gayuh Rahayu, D.H.Y.Yanto Enhancing laccase activity towards Phenanthrene degradation: a systematic analysis using <i>Phellinus noxius</i> BRB 11 laccases with three synthetic mediators
19.00-19.15	M. Pastur, C. Pastor, O. Arumí, B. Lefevbre, V. Almirall, S. Arca, E. Senol, B. Alkcan, O. Sahin, C. Castro-Barros, J. Tobella EPC-EqTech- an innovative turnkey solution to process spent caustic in the Oil&Gas industry
19.15-19.30	A. Luciano, M. Cellurale, S. Baiani, P. Altamura, L. Cutaia The building stock as an urban mine: estimation of the stock of recoverable materials in the regeneration of the built environment

ROOM 4
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SESSION XXIV

Waste-to-Energy & Energy from Waste II
Chair: A.S. Nizami, M. Kwapinska, S. Kumar

15.00-15.15	S.M. Kavoukis, C. Pappa, A. Margellou, K.S. Triantafyllidis Waste particle board valorization via fast (catalytic) pyrolysis towards value-added chemicals and fuels
15.15-15.30	M.A.A. Mohamad Dzol, V. Balasundram, K. Shameli, N. Ibrahim, R. Isha, M.K.A. Hamid Catalytic Performance of NiO Modified on Refluxed Chicken Eggshell Waste for Pyrolysis of High-Density Polyethylene
15.30-15.45	N.A. Shahdan, V. Balasundram, N. Ibrahim Catalytic Pyrolysis of Empty Fruit Bunch over Metal-modified Rice Husk Ash
15.45-16.00	E. Ekici, G. Yildiz Analysis of process parameters and assessing the possibility of utilizing the tail gases as energy sources for the pyrolysis of polyolefins
16.00-16.15	S.G.C. Almeida, M.A.M. Costa, K.J. Dussán Study of combustion of bagasse/straw sugarcane and its atmospheric emissions using a pilot-burner
16.15-16.30	M.A.M. Costa, M.P. Felizardo, E. Penteado, S.G. Coelho, A. A. Cardoso, K. J. Dussán Emission control and determination of dry deposition of pollutants emitted by burning sugarcane bagasse used as industrial fuel
16.30-16.45	M. Kwapinska, J.J. Leahy Pyrolysis of pig and cattle slurry solids at laboratory scale – is there a potential for gas and char utilization?
16.45-17.00	F. Demichelis, F. A. Deorsola, T. Tommasi, G. Cravotto, D. Fino Integrated anaerobic digestion and pyrolysis of organic fraction municipal solid waste
17.00-17.15	M.A.M. Costa, M.P. Felizardo, H. Tempesta, N.C.B. Schiavon, A. J. D. Souza, A. Sarti, K. J. Dussán Emission of carbon dioxide (CO_2) and other gases by burning sugarcane bagasse

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17.15-17.30	Wenxin Zhang, Yan Ge, Xue Wang, Sheng Zhang, Luchan Gong, Jun Wang, Shuai You A key residue for the pH-stability and thermostability enhancement of a mesophilic β -glucanase revealed by computational design
17.30-17.45	D. Fila, Z. Hubicki, D. Kołodyńska Alginate based composites as an alternative for recovery of critical raw materials – rare earth elements
17.45-18.00	P. Gahlot, G. Balasundaram, A. Ahmed Kazmi, V. Kumar Tyagi High Temperature Thermal Pretreatment Of Sludge To Alleviate Rate Limiting Step During Anaerobic Digestion
18.00-18.15	H. Raclavská, J. Růžičková, D. Juchelková, M. Kucbel, B. Švédová, M. Šafář, K. Slamová Leachable organic compounds from sewage sludge and their environmental risk potential
18.15-18.30	R. Nazar, A.-S. Nizami Development of a Sustainable Biomass Supply Chain in Pakistan
18.30-18.45	B.C.G. Rodrigues, B.S. Mello, K.J.D. Medina, A. Sarti Electro-oxidation of lignin from sugarcane bagasse as a pretreatment for biogas generation
18.45-19.00	N.F Nthatisi The effect of pyrolysis on the morphological changes in coal pellets
19.00-19.15	S. Rezasoltani, P. Champagne Biostabilization of gold mine tailings using cyanobacteria
19.15-19.30	F. Wendell Bezerra Lopes, C. Ardila Suarez, J. Pablo Villegas, M. Martinez Aguilar, M. Nazari, B. Rego de Vasconcelos, E. Lins de Barros Neto, T. Ghislain, O. Lalonde, J.-M. Lavoie Lighting-up marijuana residues to produce energy - the thermochemical pathway
19.30-19.45	H. Fares, M. El Zayat Review on Waste- to- Hydrogen (WtH) Approach and the SDGs

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| 05 | B. A. Karamanova, S. K. Veleva, A. E. Stoyanova, R. K. Stoyanova
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