



National
Technical
University
of Athens



Municipality of Ancient Olympia



NAXOS2018

13-16 June 2018

**6th International
Conference**

on

**Sustainable Solid Waste
Management**

<http://www.naxos2018.uest.gr>



NAXOS2018

6th International Conference on
Sustainable Solid Waste
Management

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Demonstrating resource efficiency through innovative,
integrated waste recycling schemes for remote areas
LIFE14 ENV/GR/000722



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Welcome

On behalf of the Scientific and Organising Committee, I am pleased to welcome you in Naxos Island, Greece and to the NAXOS 2018 6th International Conference on Sustainable Solid Waste Management (<http://www.naxos2018.uest.gr>).

As in the cases of the previous international conferences:

ATHENS 2012 (<http://athens2012.uest.gr>), **ATHENS 2014** (<http://www.athens2014.biowaste.gr>), **TINOS 2015** (<http://www.tinos2015.uest.gr>), **CYPRUS 2016** (<http://www.cyprus2016.uest.gr>) & **ATHENS 2017** (<http://www.athens2017.uest.gr>),

the NAXOS 2018 6th 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 academics, 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.

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 high reputation journals that are also more this year. At the same time, efforts are continuous in order to achieve high quality services for the conference participants. It is also important to note the introduction for the first time of a summer school prior to the conference.

The NAXOS 2018 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. Biological Treatment (composting & anaerobic digestion), the treatment at central facilities, waste prevention, separation at source & recycling also constitute priority subjects of the conference agenda. The new concept of this conference is the emphasis given to waste management in remote and isolated areas like islands.

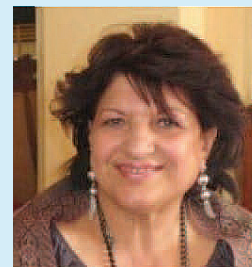
The Conference will provide an opportunity to bring together scientists & professionals from government departments, Municipalities, private institutions, research & education institutions, industry, being a forum for the exchange of the most recent ideas, techniques & experiences in all areas of solid 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. Last but not least, the intention of the Conference is to seek and promote networking opportunities through a session devoted to Environment-related Competitive EU Programmes.

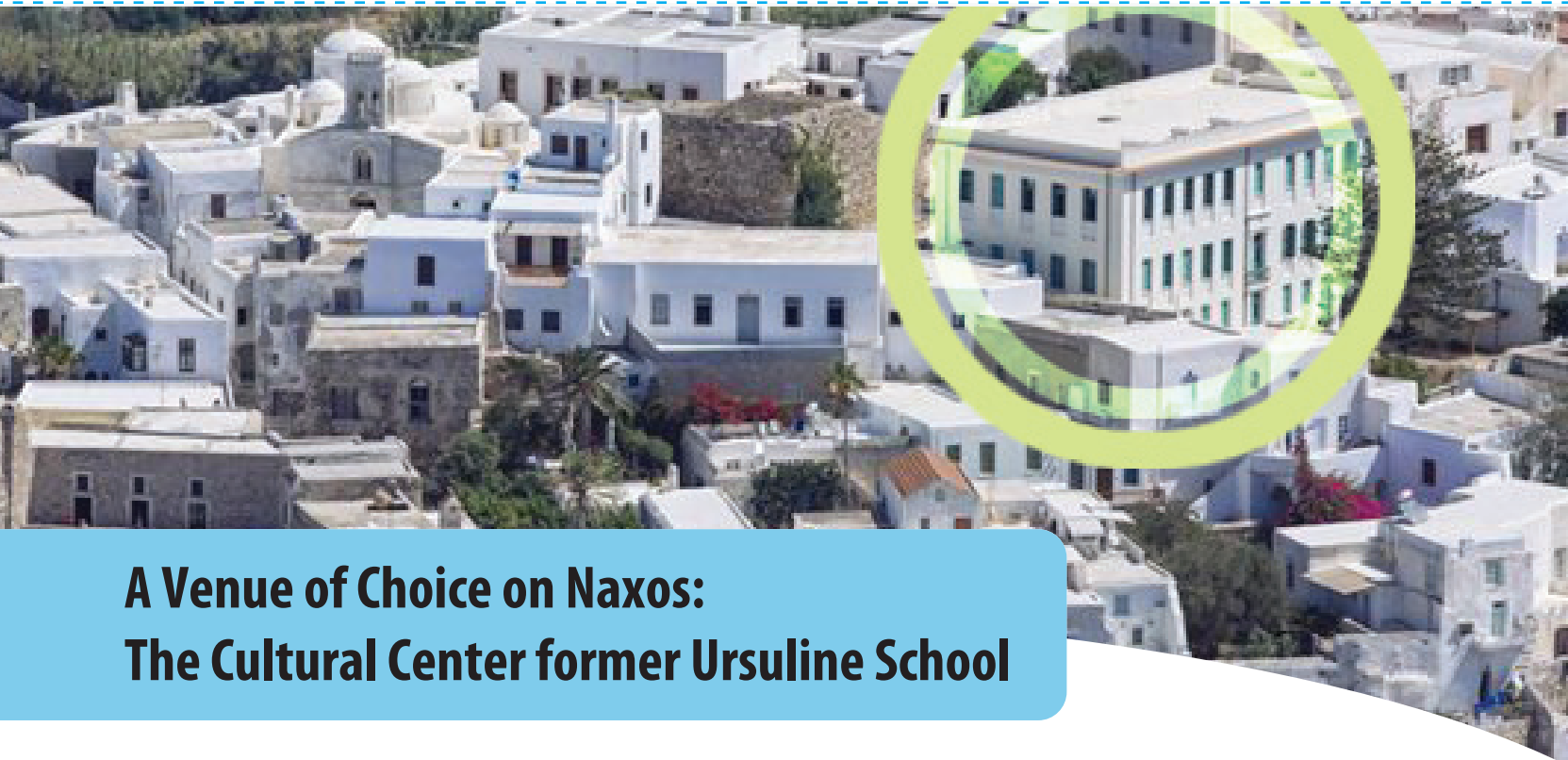
The Conference is organized within the **LIFE PAVetheWAYSTE project (LIFE14 ENV/GR/000722)** (www.pavethewayste.eu), aiming to facilitate the implementation of the Waste Framework Directive in remote areas and more specifically in Koufonisi, Donousa, Schoinoussa, Iraklia, the four small islands of the Municipality of Naxos & Small Islands, as well as in Ancient Olympia. The scope is to enable local and regional authorities to improve their municipal waste recycling performance and thus pave the way to high resource recovery and circular economy. This will be achieved through the development and application of an economically viable solid waste management plan, based on the demonstration of an innovative system for the fine separation of municipal solid waste at source. The Conference agenda is rich and dense, offering a considerable variety of topics presented through more than 350 presentations within the twenty-six different oral sessions and an extensive poster session throughout the conference duration at the Cultural Center former Ursuline School at the beautiful island of Naxos. The island is famous for the diverse landscape of mountain and sea plus the additional access to its four surrounding smaller islands (the Small Cyclades). All five island destinations cater for all ages and tastes.

We hope you will find the NAXOS 2018 Conference useful and up to your expectations and in parallel enjoy Naxos and its people that are proud for their land, beaches and traditions.



Maria Loizidou, Professor NTUA
Chair of the Scientific Committee

Conference Venue



A Venue of Choice on Naxos: The Cultural Center former Ursuline School

The Greek islands are ideal places to hold business and industry events because they offer the incentive and opportunity to participants to travel to an idyllic place. Naxos Island is not just a summer tourism destination. As an historic and leading commercial hub of the Aegean, Naxos is surely a Greek Cycladic island ideal for a conference.

While there are several venues that may host conferences in Naxos, concerts and exhibitions, the venue with the greatest capacity (800 participants) is known as The Cultural Center former Ursuline School.

Located at the highest point of the medieval castle district known as Kastro, the Ursuline School offers spectacular panoramic views onto the Aegean, the Temple of Apollo and surrounding islands, Paros, Mykonos and Syros.

Visible from far, the newly restored and renovated three-story neoclassic building elicits an aura of science and academia; a milieu befitting to its history as one of Greece's finest convents for schooling at the time. The school started to be built in 1739 and was in operation until 1970. Restored in 2009, it reopened as a state-of-the-art cultural center equipped with all necessary facilities and outlets for communications and office administration requirements (desks, computers, phone, audio visual, wifi...). Local suppliers are available to provide necessary supplies, services and support. Since opening, it has hosted international conferences and symposiums in different scientific fields as well as artistic and cultural events and exhibitions.

Social Events

A welcome cocktail will be offered at the Cultural Center of the Catholic Church, next to the Conference Venue on **Wednesday 13th June 2018** after the end of the afternoon sessions.

The Gala Dinner of the NAXOS 2018 Conference will be held at the Saint George Plaza (<https://saintgeorgeplazanaxos.com>) on **Thursday 14th June 2018** at 20:30.

A full-day excursion-site visit will take place on Saturday 16th June 2018

Starting from Naxos town at 8.30 and through the villages Glinado, Ag. Arsenios and Vivlos, whose residents produce the Naxian potato, we will arrive at Sagri where we visit the ancient temple dedicated to Apollo and Demeter. We will continue through the valley of Tragaia and we will stop at the village Halki with its mansions, the Byzantine church of Panagia Protothroni and the citrus distillery. Next stop is Apiranthos village with its marble paved alleys. Apiranthos has 4 small museums. The Archaeological Museum mainly hosts findings of the Proto-Cycladic period, the Geological Museum with its approximately 2,000 exhibits, the Natural History Museum with a collection of the area's fauna, flora and a small aquarium, while the Folklore Museum displays traditional fabrics, embroidery and tools. Finally, we will move to a sandy beach for swimming, etc. The estimated return time is about 17.30-18.00.



Summer School

An aerial photograph of a coastal town, likely Naxos, Greece. The town is built on a hillside overlooking a harbor filled with boats. In the foreground, a stone archway stands on a rocky cliff overlooking the sea. The sky is clear and blue.

1st PhD Summer School and Executive Training on Solid Waste Management, 11 & 12 June 2018

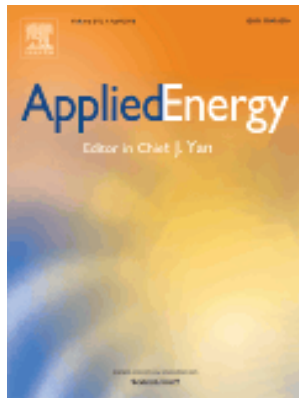
The summer school will cover the following topics:

Legal Framework and Policy, Municipal Solid Waste treatment technologies, Anaerobic Digestion, Circular Economy, Waste-to-Energy, Sustainable Management.

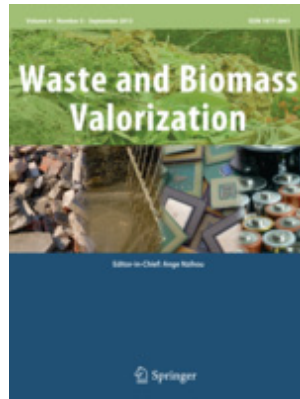
The summer school will include 16 teaching hours in total on 11th & 12th of June 2018. On June 13th, 2018, the participants will attend the Poster Session of the "NAXOS 2018 6th International Conference on Sustainable Solid Waste Management" and a final session/ roundtable with the main topic being the "State-of-the-art and future directions of Sustainable Solid Waste treatment: the pathway to Circular Economy". Individual final assignments will be assigned to the participants and the grading of the course will be done on a Pass/ Fail basis. A certificate of attendance will be given to all the attendees.

Publishing in Journals

The high quality NAXOS 2018 papers will be published after evaluation in:



a Special Issue of APPLIED ENERGY (Elsevier, Impact Factor: 7.182)



a Special Issue of WASTE & BIOMASS VALORIZATION (Springer, Impact Factor: 1.337)



a Special Issue of ENVIRONMENTAL SCIENCE and POLLUTION RESEARCH (Springer, Impact Factor: 2.741)



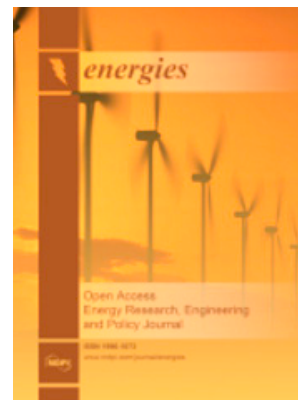
WASTE MANAGEMENT & RESEARCH (Impact Factor: 1.803)



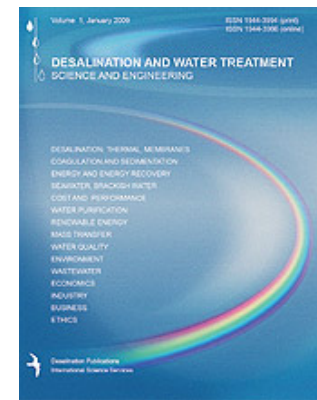
a Special Issue of JOURNAL OF CHEMICAL TECHNOLOGY & BIOTECHNOLOGY (Wiley, Impact Factor: 3.135).



JOURNAL OF HAZARDOUS MATERIALS (Elsevier, Impact Factor: 6.065)



a Special Issue of ENERGIES (Impact Factor: 2.262)



a Special Issue of DESALINATION & WATER TREATMENT (Impact Factor: 1.603).

Committees

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Costas Velis, University of Leeds
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Weiguo Shen, Wuhan University of Technology
Zhao Jun Wei, Hefei University of Technology
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Despoina Bakogianni, National Technical University of Athens
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Varvara Lavouta, National Technical University of Athens
Vasiliki Panaretou, National Technical University of Athens



Agenda 2018

Wednesday, 13 June 2018

Room 1

Welcome Speeches - Keynote session 1 9.15-11.00

Room 1

MSW management - Experience of local authorities in waste management 11.30-15.00

Lunch Break 14.15-15.00

Aerobic Treatment 15.00-18.45

Room 2

Circular Economy 11.30-14.30

Lunch Break 14.15-15.00

Waste Management Tools & Novel Technologies 15.00-18.30

Thursday, 14 June 2018

Room 1

Keynote session 2 9.00 - 11.00

Room 1

Bioprocesses, Biorefineries in waste management I 11.15-14.30

Lunch Break 14.15-15.00

Anaerobic Digestion 15.00-18.30

Room 2

Tools in the field of waste management 11.15-13.45

Lunch Break 14.15-15.00

Policy, Prevention, Socio economic Issues and Management in Islands & Isolated Areas 15.00-19.30

Friday, 15 June 2018

Room 1

Waste-to-Energy 9.15-13.45

Lunch Break 14.00-15.00

Hazardous Waste Management 15.00-18.30

Closing Session *After the end of all sessions*

Room 2

Recycling, Waste & Resource Recovery 9.15-14.00

Lunch Break 14.00-15.00

Biofuels from Waste 15.00-17.30

Agenda 2018

Room 3

| | |
|---------------------------------|-------------|
| Construction & Demolition Waste | 11.30-14.00 |
| Lunch Break | 14.15-15.00 |
| Waste & Resource Recovery I | 15.00-19.00 |

Room 4

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|---|-------------|
| Marine Litter, Plastics-Bioplastics, Waste from Electrical & Electronic Equipment | 11.30-14.30 |
| Lunch Break | 14.15-15.00 |
| Management of Specific Waste Streams | 15.00-17.15 |

Room 3

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|--|-------------|
| Water-Energy efficiency: From practice to policy | 11.15-13.45 |
| Lunch Break | 14.15-15.00 |
| Food waste management, bioeconomy, food industry, Source Separation schemes | 15.00-18.15 |

Room 4

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|---|-------------|
| LIFE Programme and Master-class on Horizon 2020: How to win funds for your innovative research projects? The experience of H2020 & LIFE projects | 11.15-14.15 |
| Lunch Break | 14.15-15.00 |
| Waste & Resource Recovery II | 15.00-18.30 |

Room 3

| | |
|--|-------------|
| Bioprocesses, Biorefineries in waste management II | 9.15-13.30 |
| Lunch Break | 14.00-15.00 |
| Characterisation of Waste Residues | 15.00-18.00 |

Room 4

| | |
|-------------------------------|-------------|
| Agricultural Waste Management | 9.15-13.30 |
| Lunch Break | 14.00-15.00 |
| Sludge Management | 15.00-17.45 |

circular economy ethanol biotechnology food waste
biowaste valorization recycling materials glass
specific waste streams metal paper biofuels waste-to-
energy composting anaerobic digestion gasification
pyrolysis incineration biopolymers energy tools pre-
vention reuse landfill biomass WEEE C&D waste plas-
tics marine litter bioplastics biorefineries innovation
agricultural waste zero waste policy strategy islands
isolated areas

The innovative
PAVEtheWAYSTE
system



8.00-9.15

Registration

ROOM 1

Welcome Speeches

9.15-9.45

Welcome Speeches

9.45-11.00

Keynote Speakers

Chair: M. Loizidou, D. Newman

Patrik Kolar, EASME, Department B: LIFE and H2020 Energy, Environment, Resources
"Latest developments in H2020 SC5 and LIFE"

Georges Kremlis, European Commission, DG Environment
"Circular Economy and Waste Management"

David Newman, World Biogas Association
"Urban Food Waste Management: The WBA, C40 report for cities on the challenge of managing food waste"

Nathalie Gontard, National Institute for Agricultural Research (INRA)
"Toward a zero persistent plastic bio-economy: challenges and opportunities to eradicate plastic waste, especially in the agricultural and food sectors"

Maria Loizidou, National Technical University of Athens, Chair
"Demonstrating resource efficiency through innovative, integrated waste recycling schemes for remote areas"

11.00-11.30



Coffee Break

ROOM 1 SESSION I

MSW management - Experience of local authorities in waste management **Chair: S. Chionidis, G. Kremlis, M. Loizidou**

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|-------------|--|
| 11.30-11.45 | G. Patoulis, President of the Central Union of Municipalities Local authorities and waste management |
| 11.45-12.00 | E. Kapetanios, General Secretary, General Secretariat for Waste Management Coordination Prospects and opportunities of waste management in Greece |
| 12.00-12.15 | S. Chionidis, Central Union of Municipalities Committee for spatial planning, infrastructure & environment The role of municipalities in solid waste management |
| 12.15-12.30 | M. Geranis, RASWMA Central Macedonia Solid Waste Management: Third generation, the "Egnatia" Project |
| 12.30-12.45 | K. Paterakis, DEDISA Sustainable municipal solid waste management in Chania |
| 12.45-12.55 | G. Konstantzos, D. Malamis, K. Moustakas, M. Loizidou Effective waste management at municipal level |
| 12.55-13.10 | G. Papadakis, FODSA of Boreias Pediadas Waste Management in Boreia Pediada in Crete |
| 13.10-13.20 | S. Margariti Waste Management in the Municipality of Naxos and Small Islands |
| 13.20-13.30 | S. Vakalis, K. Moustakas, D. Malamis, M. Loizidou Gasification as a potential pathway for the decentralized production of heat and power |
| 13.30-13.45 | S. Koroneou, E.Z. Stamatopoulou The waste paper recycling program in Attica Region |
| 13.45-14.00 | T. Manios, F. Galliou, A. Maragkaki Bio-waste: Alternative Solutions for High Added Value Products |
| 14.00-14.15 | P. Kafasis, DIADYMA SA Waste management in Western Macedonia |
| 14.15-14.30 | C. De La Paz LIFE: good practice on sustainable MSW |

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| 14.30-14.45 | D. Papadopoulos, A. Christidis Municipal waste management in the Municipality of Elefsina |
| 14.45-15.00 | A. Mavraganis Waste management in the Municipality of Vrillissia |
| 14.15-15.00 | Lunch Break |

ROOM 2 SESSION II

Circular Economy

Chair: K. Chojnacka, R. Bayard, A. Mousavi

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|-------------|---|
| 11.30-11.45 | J. Quoden, M. Romenska Extended Producer Responsibility as key tool to implement Circular Economy |
| 11.45-12.00 | P. Martel-Naquin, J. Lacour, G. Jean, R. Bayard Municipal waste valorization in Haiti: how experimentation can be used as advocacy for circular economy |
| 12.00-12.15 | A. Podder, D. Reinhart, R. Goel Where do landfills fit in the changing paradigm of circular economy- resource recovery and social aspects |
| 12.15-12.30 | G. Hafner, M. Rubach, P. Pils, D. Leverenz Food waste monitoring and energy saving potential |
| 12.30-12.45 | A. Frigo, M. Lucchini Working together towards circular economy: recovery and redistribution of surplus food for social purposes |
| 12.45-13.00 | J. Van Caneghem, K. Van Acker, C. Vandecasteele, G. Wauters How waste-to-energy plays an essential role in the circular economy |
| 13.00-13.15 | K. Chojnacka Bio-based fertilizers: a practical approach towards circular economy |
| 13.15-13.30 | A. Ibn Ferjani, M. Jeguirim, N. Thevenin, S. Jellali, H. Arkout, S. Bennici, L. Limousy Soil amendment with pyrolysed grape marc residue: a circular economy study |

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| 13.30-13.45 | J. Ann Baker, M. Samuel Moesby Tinggaard, P. Enevoldsen, G. Xydis Circular economy in relation to manufacturing companies producing kitchens - a method for realizing the theory in practice |
| 13.45-14.00 | I. Ortiz, Y. Torreiro, G. Molina, M. Maroño, J.M. Sánchez A feasible application of circular economy: spent grain energy recovery in the beer industry |
| 14.00-14.15 | A. Mousavi, P. Stanchev, V. Angadi, E. Katsou Clockwork Circular Economy – The principle of Zero Breakdown of Circular Economy Technologies |
| 14.15-14.30 | H.-G. Baum Economic conditions for recycling of waste |

ROOM 3

SESSION III

Construction & Demolition Waste

Chair: C. Gutiérrez Palacios, V.M. Zanta, B. Ruffino

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|-------------|---|
| 11.30-11.45 | M. Bassani, L. Tefa, P. Palmero Alkali-activation of construction and demolition waste components for stabilization purposes |
| 11.45-12.00 | C. Gutiérrez Palacios Methodology to determine the amount and composition of construction waste from collapsed buildings |
| 12.00-12.15 | C.T. Nzogo Metoule, S. Delaby, J.H. Ferrasse, O. Boutin Hydrothermal process development for the treatment of asbestos containing waste |
| 12.15-12.30 | A. López-Uceda, J. Ayuso, A.P. Galvin Mechanical performance of Recycled Aggregate from CDW at long term varying gypsum content |
| 12.30-12.45 | L.C.B. Santos, L.M. Queiroz, V.M. Zanta Performance evaluation of a small and decentralized recycling unit as an alternative for construction and demolition waste valorization |
| 12.45-13.00 | E. Choorackal, P. P. Riviera, D. Dalmazzo, E. Santagata, L. Zichella, P. Marini Reuse of reclaimed asphalt pavement and mineral sludges in fluidized thermal backfills |
| 13.00-13.15 | S. Karimpour Zahraei, M. Jalili Ghazizade Recycling of Construction & Demolition Waste (challenges and opportunities) |
| 13.15-13.30 | N. Kumar Jain, K. Bhaskar, S. Jain An empirical study of attitude towards construction and demolition waste recycling: Integrating social impression and environmental consciousness with theory of planned behaviour |
| 13.30-13.45 | B. Ruffino, A. Farina, A. Vercelli, D. Dalmazzo, G. Blengini, M.C. Zanetti, E. Santagata Recycling paint sludge in asphalt pavements: cost-benefit and life cycle assessment |
| 13.45-14.00 | A. Cannone Falchetto, K.H. Moon, D. Wang, C. Riccardi, M.P. Wistuba Experimental investigation on double recycling of asphalt mixture for pavement applications |

ROOM 4
SESSION IV

**Marine Litter, Plastics-Bioplastics, Waste from Electrical
& Electronic Equipment**

Chair: K. Lasaridi, A. Gross, C. Velis

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|-------------|--|
| 11.30-11.45 | C. Velis, D. Lerpiniere, M. Tsakona Plastic marine litter- Stop the leakage now! |
| 11.45-12.00 | M. Tinggaard, R.A. Hansen, A. Gross Can WasteWater Treatment Plants (WWTP) clean the sewage for microplastics? (using a newly developed filtration instrument) |
| 12.00-12.15 | R.A. Hansen, A. Gross Longitudinal sampling design and instrument development for investigation of microplastics in costal sediments |
| 12.15-12.30 | G. Vyncke, J. Onnekink, T. Feenstra, K. Ragaert Design from Recycling for post-consumer WEEE plastics |
| 12.30-12.45 | D. Briassoulis, A. Pikasi, M. Hiskakis Inventory of alternative end-of-life routes of bio-based products – A Review |
| 12.45-13.00 | G.-W. Jang Synthesis and Applications of Bio-based Polyesters |
| 13.00-13.15 | A. Genc, S. Sarac Mechanical recycling of plastic solid waste in an urban district in Turkey |
| 13.15-13.30 | I. Janajreh, I. Adeyemi, S. Elagroudy Kinetic evaluation and gasification of household plastic waste into syngas stream |
| 13.30-13.45 | K. Lasaridi, K. Boikou, K. Kalafata, C. Chroni, Ch. Angelakopoulos, K. Abeliotis Mapping EEE reuse and WEEE preparing for reuse practices and initiatives in Greece |
| 13.45-14.00 | K. Lasaridi, E. Terzis, C. Chroni, K. Abeliotis Statistics in the national e-scrap arisings and their movement between countries |
| 14.00-14.15 | J. M. Alghazo, F. Alanezi, M. Rehan, A. S. Nizami, M. H. Salameh, O. K. M. Ouda Economic and Environmental Values of Electronic Waste in the GCC Region |

14.15-14.30

C. Chroni, E. Terzis, K. Abeliotis, Ch. Angelakopoulos, K. Lasaridi
A country specific assessment of EEE lifespan distribution based on a questionnaire-based survey

ROOM 1

SESSION V

Aerobic Treatment

Chair: S. Smith, T.Y. Wu, D. Malamis

15.00-15.15

M. Sakarika, R. Baetens, K. Vinck, M. Spiller, K.C. Vrancken, G. Van Barel, E. Du Bois, S.E. Vlaeminck
Enabling decentralized pre-composting of organic household waste with a novel high-rate bioreactor

15.15-15.30

M. Roulia, E. Kontezaki, D. Gkikas, G. Panagopoulou, K. Chassapis
Soil conditioner, suitable for biological cultivation, developed from olive-oil-mill wastes using a fast microaerobic biotreatment method

15.30-15.45

T. Jiang, J.L. Chang, X.G. Ma, J. Yang, G.X. Li
Linking N₂O emissions to specific functional microbial community structure under different composting models

15.45-16.00

M. Kumar Awasthi, Z. Zhang
Antibiotic Resistome and Its Association with Bacterial Communities during Chicken Manure Composting

16.00-16.15

J.L. Chang, T. Jiang, G.X. Li
Antibiotic resistance genes variation pattern and microbial community succession during pig manure composting with different management modes

16.15-16.30

Z. Zhang, M. Kumar Awasthi, R. Xiao
Clean compost: pollution control: during composting of livestock and poultry manure

16.30-16.45

G. Jean, P. Martel-Naquin, R. Bayard, J. Lacour
Composting of dry toilets solid residues: evolution of the characteristics over time

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| 16.45-17.00 | A. Hanc, T. Castkova Vermicomposting of distillery residues in a vertical-flow windrow system |
| 17.00-17.15 | S. Hemidat, M. Saidan, A. Nassour, M. Nelles Study and Assessment of Segregated Biowaste Composting: The Case Study of Jordan |
| 17.15-17.30 | G. Hafner, M. Reiser, M. Ruiz Treatment of residuals from coffee production in Costa Rica. Organic waste- and resources management in the context of NAMA Café de Costa Rica |
| 17.30-17.45 | Jing Yuan, Difang Zhang, Yun Li, Wenhai Luo, Hongyu Zhang, Ji Li , Guoying Wang, Guoxue Li Effects of aeration method, aeration rate and turning frequency on bio-drying performance of municipal solid waste |
| 17.45-18.00 | S. Chelinho, J. P. Sousa Quality Standards for Urban Waste Composts: the need for biological susceptibility data |
| 18.00-18.15 | A. Lieto, D. Zingaretti, F. Lombardi, R. Gavasci Effect of a secondary maturation phase on the leaching behaviour of MBT waste |
| 18.15-18.30 | E. Christodoulou, A. Agapiou, I. Anastopoulos, M. Omirou, I.M. Ioannides Nitrogen cycling in soils under different nutrient management schemes |
| 18.30-18.45 | G. Seintis, I. Ntzoura, A. Vlysidis, A. Vlyssides Mathematical model of nitrification-denitrification in one stage under anoxic conditions |

ROOM 2 SESSION VI

Waste Management Tools & Novel Technologies

Chair: D. Hidalgo, A. Erdinçler, R. Liu

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|-------------|--|
| 15.00-15.15 | D. Hidalgo, J.M. Martín-Marroquín, F. Corona Economically sustainable system for multi-waste management: the "Mixed Plant" concept |
| 15.15-15.30 | S. Vakalis, K. Moustakas, M. Loizidou Applications of the 3T Method as an efficiency tool for Waste-to-Energy facilities and numerical comparisons with the R1 Formula |
| 15.30-15.45 | M. Prasad, A. Kavanagh, A. Chrysargyris, N. Tzortzakis Chemical characterization of Biochars using parameters that are relevant to its use as a component of a peat based growing media |
| 15.45-16.00 | E. Özön, A. Erdinçler Biochemical Methane Production Potential of the Microwave, MW/H ₂ O ₂ and MW/S ₂ O ₈ ²⁻ Pre-treated wastewater sludges |
| 16.00-16.15 | Yuanfei Mei, Chenjie Shen, Biaobiao Liu, Ronghou Liu Effect of Methanol addition on properties and aging reaction mechanism of bio-oil during storage |
| 16.15-16.30 | M. Taheri, E. Salimi, K. M. Saragas, J. Novakovic, E.M. Barampouti, S. Mai, D. Malamis, M. Loizidou Effect of pretreatment techniques on enzymatic hydrolysis of biowaste |
| 16.30-16.45 | R. Bayard, P. Buffière An improved methodology to assess the organic biodegradability and the biochemical methane potential of solid organic matter and biowaste |
| 16.45-17.00 | L. Vorotinskienė, N. Striūgas, K. Zakarauskas, R. Paulauskas, R. Skvorčinskienė Investigation on parameters affecting biofuel drying during combustion in furnaces |
| 17.00-17.15 | M. De Sanctis, S. Chimienti, G. Sgaramella, C. Pastore, V. Piergrossi, C. Di Iaconi Energy recovery from Posidonia oceanica residues by a thermo-chemically enhanced anaerobic digestion process |
| 17.15-17.30 | J. Oladejo, K. Shi, P. Guo, S. Adegbite, T. Wu An evaluation of sludge-to-energy recovery methods |
| 17.30-17.45 | E. Babayigit, D. Atik, A. Erdinçler Effect of acid and ultrasonic pre-treatments on the lipid extraction from petrochemical industry and sewage sludges |

- 17.45-18.00 Y. Ma
Using beneficial bacteria to facilitate phytoremediation of metal polluted soils under drought stress
- 18.00-18.15 V. Diamantis, A. Aivasidis, D. Marmanis, K. Dermentzis
Coupling anaerobic digestion and electrooxidation for sustainable waste treatment: a review
- 18.15-18.30 C.C.G. Andrade, P.D.B. Coelho, L.C.G.M. Teixeira
Benefits of the selective collection in the public company Companhia Docas do Pará - CDP, in the Amazon / Brazil

ROOM 3

SESSION VII

Waste & Resource Recovery I

Chair: J. Wang, S. Van Hulle, L. Limousy

- 15.00-15.15 V. Sygouni, A. G. Pantziaros, E. Sfetsa, C. A. Paraskeva
Treatment of two-phase olive –oil wastewater and recovery of phenolic compounds
- 15.15-15.30 P. Dutournié, M. Jeguirim, L. Limousy
Drying of olive waste mill wastewater for material recovery
- 15.30-15.45 A. Koumara, E. Kiatipis, A. Eftaxias, V. Diamantis, A. Aivasidis
Feasibility of separated-phase anaerobic digestion for biogas production from olive mill waste water
- 15.45-16.00 K. Tzathas, A. Vlysidis, G. Lyberatos, A. Vlyssides
Factorial design of phenolic extraction process from two phase olive mill waste
- 16.00-16.15 E. Carmona Garcia, M. Ortiz Sanchez, C. A. Cardona Alzate
Evaluation and analysis of the coffee cut stems as raw material for the production of sugars for ABE fermentation
- 16.15-16.30 L.J. Rodríguez, J.D. Gonzales, E. Carmona, C.A. Cardona, C.E. Orrego
Valorisation of agricultural residues from Andean fruits: case studies
- 16.30-16.45 M. Jeguirim, L. Limousy, K. Thabet, L. Josien, L. Michelin, C. Vaultot, S. Bennici
Effect of Mg and K inorganic species on the chars properties derived from grape marc pyrolysis

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| 16.45-17.00 | S. Van Hulle Model based assessment of anaerobic digestion of lignocellulose containing waste materials |
| 17.00-17.15 | C. Marzo, J. Álvarez, A.B. Díaz, I. Caro, A. Blandino Effect of alkaline peroxide pretreatment on fibre composition of various lignocellulosic residues |
| 17.15-17.30 | L. Cagnin, L. Favaro, V. Pizzocchero, F. Cotana, A. Nicolini, G. Cavalaglio, M. Basaglia, S. Casella Novel yeast strains for the efficient conversion of steam-exploded lignocellulosic waste streams to bioethanol |
| 17.30-17.45 | N. Gronchi, L. Favaro, L. Cagnin, V. Pizzocchero, M. Basaglia, S. Casella Novel industrial yeast strains for future consolidated bioprocessing of starchy byproducts to ethanol |
| 17.45-18.00 | M. Kyriakou, V. Chatziiona, C. Costa, L. Koutsokeras, G. Constantinides, M. Koutinas Combining pyrolysis of biowaste to industrial bioprocesses: Enhancement of bioethanol production with the use of biochar-based biocatalysts |
| 18.00-18.15 | D. Mathioudakis, G.M. Lytras, D. Fotiou, C. Lytras, K. Papadopoulou, G. Lyberatos Valorization of a Food Residue Biomass product in a two-stage anaerobic digestion system for the production of hythane |
| 18.15-18.30 | E. Montoneri, G. Fabbri, M. Negre Valorization of Fermented Municipal Biowaste as Source of Value Added Chemical Specialities and Intermediates |
| 18.30-18.45 | J. Ibarri, I. Hernández Production of value added food derived sub-products via solid state fermentation with <i>Rhizopus oryzae</i> |
| 18.45-19.00 | Z.-Y. Bai, S.-M. Zhang, X. Liu, S. Sheng, F.-A. Wu, J. Wang Generation of α -linolenic acid emulsion droplet from silkworm pupae oil by microchips |

ROOM 4

SESSION VIII

Management of Specific Waste Streams

Chair: A. Luciano, G. Iliopoulos, G. Mavrias

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|-------------|---|
| 15.00-15.15 | P. Vounatsos, G. Mavrias, P. Grammelis Impurities analysis in ELT products deriving from mechanical recycling |
| 15.15-15.30 | N. Ferronato, M. Ragazzi, M. A. Gorrity Portillo, E. G. Guisbert Lizarazu, V. Torretta Healthcare waste indicators for assessing the infectious waste management in the public hospitals of La Paz (Bolivia) |
| 15.30-15.45 | G. Mancini, A. Luciano, R. P. Viotti, N. Mankaa, M. Traverso, D. Fino Life Cycle Assessment as a tool for addressing proper ASR management |
| 15.45-16.00 | G. Iliopoulos, M. Dimitropoulou, D. Bourkas, A. Bourka, V. Stergiou Assessment of Sustainable Used Lead Acid Battery Collection and Recycling Scheme in Jordan |
| 16.00-16.15 | A. Gassner, J. Fellner Subway Infrastructure: Waste Flows and Stock Changes in Refurbishment |
| 16.15-16.30 | A.A. Tsoumani, N.-M. Barkoula, T.E. Matikas Chloride penetration and strength of recycled aggregate concrete |
| 16.30-16.45 | T. Phenrat, P. Mooheng Acid-assisted Recycling of $\text{Fe}(\text{OH})_3$ Sludge as Coagulant for Metalworking Fluid Wastewater Treatment |
| 16.45-17.00 | R. Baciocchi, G. Costa, I. Verginelli Characterization of road sweeping waste in view of developing specific strategies to enhance its valorisation |
| 17.00-17.15 | Meihan Yu, Siqin Xiong, Junping Ji, Xiaoming Ma Forecast of retired electric vehicle lithium-ion batteries in China |

Poster session

1. Y. Fu, N.N. Lu, H.L. Jian
Study on the stability of a modified banana peel coagulant
2. T. Staněk, P. Sulovský, M. Boháč
Cementitious binders for immobilization of hazardous elements
3. M.N. Kumar, A. Bekatorou, A.-I. Gialleli, K. Pissaridi, A.A. Koutinas, M. Kanellaki, C. Kordulis, J. Turkey
Porous cellulose from leaves/bark of *Shorea robusta* G. & *Mangnifera indica* L., and husk of *Oryza sativa* L., of Indian origin, for bioprocess applications: textural characterization
4. I. Pleioni, A.A. Koutinas, A. Bekatorou, M. Kanellaki, V. Karathanos, A. Chiou, A. Mallouchos
Innovative biorefinery development for valorisation of raisin finishing side-streams: Dry wine making process
5. J.P.S.Q Menezes, F. C. Jácome, R.L. Manfro, M.M.V.M Souza,
Evaluation of different Ni/Al₂O₃ catalysts in glycerol steam reforming for hydrogen production
6. A. Hossein Amoohosseini, M. Arezoumandi, M. Reza Aghabagheri, M. Sadegh Dehghan Neyestanaki, F. Bohloli
Mechanical properties of concrete with recycled concrete aggregates
7. M. Reza Aghabagheri, M. Arezoumandi, A. Amoohosseini, M. Sadegh Dehghan Neyestanaki, F. Bohloli
Mechanical properties of fly ash concrete
8. Nguyen Thi Thanh Truc, Byeong-Kyu Lee
Sustainable and Selective Separation of ABS/PC Plastics from Styrene Plastic Mixture in Electronic Waste Shredder Residue using Ultrasonication/ H₂O₂
9. D. Allam, S. Bennici, S. Cheknoun, S. Hocine
Effect of La and Ce addition on the catalytic hydrogenation of carbon dioxide over CuO-ZnO/SiO₂-type catalysts
10. F. Battista, D. Bolzonella
Exploitation of solar energy for ammonia sulfate recovery from digestate
11. D. Bakogianni, E. Skourtanioti, E. Antonatos, N. Kalogiannis, A. Konsta, M. Loizidou
Salt recovery from brine
12. S. Pavón, A. Fortuny, M.T. Coll, A.M. Sastre
REEs recovery from fluorescent lamp wastes improvement applying supported liquid membranes to the leaching solutions
13. M. Boháč, I. Chromková, T. Staněk
Improved chemical resistance of concrete by incorporation of industrial waste
14. H.Y. Shin, J.C. Yoo, S.W. Ji
A study on the characterization of the HFNP by using mineral carbonization method
15. K. Krajewski, K. Szczepański, S. Łaba, M. Świątkowska, R. Zabrocki, J. Oleksiejuk
Integrated assessment of solutions for the problem of waste facility in rural areas in Poland in the context of ensuring the energy safety of local communities and regional perspective
16. S. Kocić-Tanackov, J. Pejin, Miloš Radosavljević, M. Pribić, D. Mladenović, A. Djukić-Vuković, L. Mojović
Brewing and malting technology by-products as raw materials in L-(+)-lactic acid fermentation
17. D.P. Zagklis, C.A. Paraskeva
Preliminary design of phenols purification plant
18. W. Korichi, M. Ibrahim, T. Bourdin, Y. Ouhdouch, S. Loqman, L. Lemee
Treatment of hospital wastewater of Marrakesh (Morocco) with actinomycetes to eliminate multi-resistant bacteria
19. D. Hidalgo, J.M. Martín-Marroquín, L. Garrote
Adding sustainability to the fruit and vegetable processing industry through solar-powered algal wastewater treatment
20. C. Chaabani, E. Weiss-Hortala, J.H. Ferrasse, O. Boutin, Y. Soudais
Recovery of carbon fibres from composite waste by hydrolysis in subcritical water

Poster session

21. G. Greco, G.M. Capello, G. Cecchi, L. Cutroneo, S. Di Piazza, G. Vagge, M. Zotti
Mycoremediation of PAHs mixture by filamentous fungi
22. M.S. Chen, C.C. Ho
Risk evaluation of outsourced biomedical waste disposal of medical institutions by multi-criteria decision making analysis to improve hospital management capability
23. A. K. Nowak, A. Jarosiński, Z. Wzorek, K. Gorazda
LCA analysis of environmental impact of Zn-Pb ores
24. P. Hadjiyiannis, I. Pashalidis
Copper(II) adsorption by biochar fibers prior and after MnO₂-coating
25. Y. Maiga, S. Roussos, A.S. Ouattara, H. Macarie
Valorisation of Jatropha seeds cakes by solid state fermentation
26. A. Nikolaou, G. Mitropoulou, Y. Kourkoutas, S. Roussos
Resident microbial dynamics during natural digestion of olive oil mill waste waters in an integrated valorization system
27. R. Hamrouni, J. Molinet, M. Claeys-Bruno, N. Dupuy, A. Masmoudi, S. Roussos
Aeration influenced on the production of 6-pentyl-alpha-pyrone, spores and enzymes in solid state fermentation by *Trichoderma* strains
28. B. Kharbouch, A. Getto, S. Amat, J-L Pierson, N. Dupuy, S. Criquet, H. Lakhtar, A. El Mousadik, S. Roussos
Treatment and valorization of olive mill wastes through vermicomposting using *Eisenia andrei*
29. Q. Carboué, I. Bombarda, M. Maresca, S. Roussos
Potential use of vine shoots as support to carry solid-state culture
30. R. Erhatic, L. Kutnjak, M. Vukobratović, Ž. Vukobratović, T. Peremin-Volf
The effect of compost on the growth and development of *Pelargonium* seedlings
31. A. A. Reheem, N. Yilmaz, M. Elhag
Consideration of onion solid by-products homogenate in phenolics decontamination of olive mill waste management
32. F.J. Carmona, J.A. Pascual, F. Fernández
Targeted composting of olive mill wastes. Comparison between three-phase and two-phase waste composting
33. M.L. Elias, V.R. Amorim, M.A.G. Hinojosa, A.L.F.M. Conde, B.R. Quintaes, J.C. Campos
Co-disposition of sludge generated during leachate landfill treatment with household solid waste
34. C.S. Theóphilo, V.R. Amorim, M.A.G. Hinojosa, A.L.F.M. Conde, B.R. Quintaes, J.C. Campos
Evaluation of health care waste management of a hospital unit in Rio de Janeiro City, Brazil
35. B. R. Quintaes, J. C. Campos, A. L. F. M. Conde, M. A. G. Hinojosa, V. R. Amorim, J. T. Junior, J. C. J. França
Household solid waste composition in Rio de Janeiro city, Brazil: an historical view
36. R.G.S.M. Alfaia, M. M. P. do Nascimento, D. M. Bila, J. C. Campos
Evaluation of the fouling potential of landfill leachate treated by coagulation/flocculation in nanofiltration and reverse osmosis processes
37. P. Calza, J. Di Sarro, G. Magnacca, E. Laurenti
Low-cost magnetic materials containing waste derivatives as catalyst for removal of organic pollutants
38. S. Tebib, A. Jada
Metal ions removal from water by Humic Acid particles

Poster session

39. H. Bouchoum, D. Benmoussa, M. Tahiri, A. Jada, O. Cherkaoui
Efficient removal of ion chromium (VI) from aqueous solutions using functionalized acrylic fibers
40. D. Sakhi, Y. Rakhila, A. Elmchaouri, M. Abouri, S. Souabi, A. Jada
Optimization of the physicochemical treatment of an effluent from a textile industry with ferric chloride and polymer
41. E. Loginova, H.J.H. Brouwers
Relevance of MSWI fly ash total composition analysis: A case study of washing pretreatments
42. J.C. Solarte-Toro, J.M. Romero-García, J.C. Martínez-Patiño, E. Ruiz-Ramos, E. Castro-Galiano, C.A. Cardona-Alzate
Techno-economic evaluation of bioethanol production using optimized conditions for the sulfuric acid pretreatment of extracted olive tree biomass
43. J.C. Solarte-Toro, J. M. Romero-García, E. Ruiz-Ramos, E. Castro-Galiano, C.A. Cardona-Alzate
Prefeasibility assessment of the lignin, antioxidants and bioethanol production using a two-stage organosolv pretreatment and simultaneous saccharification and fermentation process
44. M. Calero, G. Blázquez, A. Pérez, A. Ronda, I. Iáñez, M.A. Martín-Lara
Characterization of the physical and chemical properties of olive cake for its use as fuel
45. S. Siddique, K. Yates, J. Njuguna
Thermo-chemical characterisation of Oil Based Mud wastes
46. A.R. Ferreira, P.E. Jensen, P. Guedes, E.P. Mateus, A.B. Ribeiro, N. Couto
Electrokinetic based technologies in cold climate conditions - remediation of contaminated polar soil
47. P. Guedes, V. Lopes, N. Couto, A. Ferreira, E.P. Mateus, C. Silva Pereira, A.B. Ribeiro
Influence of the spiking procedure on organic contaminants recovery from soil
48. G. Mercuri Quiterio, J. Matos Cruz, R. Nalin Montagnolli, E. Dino Bidoia
Comparison between biological and chemical approaches towards the biodegradation of diesel/biodiesel blends
49. C. Bogiatzidis, L. Zoumpoulakis
Effects of construction and demolition wastes particle-loading on mechanical response of polymeric composite materials
50. J. Ramon Pamies, J. Pablo Carreno
Obtaining a second generation biofuel by applying TMCP (Thermo-Mechanical Cracking Process) technology to waste management
51. B. Mayans, R. Camacho-Arévalo, C. García-Delgado, R. Antón, C. Escolástico, E. Eymar
Tetracyclines degradation by edible ligninolytic fungi
52. R. Camacho-Arévalo, B. Mayans, C. García-Delgado, R. Antón, C. Escolástico, E. Eymar
Spent mushroom substrates biofilters: degradation of antibiotics by ligninolytic fungi
53. R. Antón, M. Alonso-Izquierdo, J. Cuevas, N. Carreras, B. Mayans, R. Camacho, E. Eymar
Effects of treated urban waste digestates on hydroponically grown tomato (*Solanum lycopersicon* L)
54. V.M. Mattos, J.P. Cedraz, Z.N. da Rocha, L.M. Queiroz, D.V. Vich, V.M. Zanta
Food waste stabilization and valorization by inorganic oxidative process

Poster session

55. A. Anic Vucinic, S. Simunic, I. Grcic, I. Melnjak, L. Radetic
Possibility of recycling of waste LCD residues in concrete industry
56. T. Hernandez, C. Chocano, C. Garcia
Composts as alternative to inorganic fertilization for cereal crops
57. J. Bacenetti, D. Lovarelli, G. Falcone
Consequential Life Cycle Assessment of electricity production from biogas in Italy
58. Xue-Jiao Zhou, Chang-Tong Zhu, Sheng Sheng, Fu-An Wu, Jun Wang
Aqueous two-phase extraction and enzymatic conversion of mulberry anthocyanins
59. L.-L. Zhu, C.-T. Zhu, C.-Q. Jin, S. Sheng, F.-A. Wu, J. Wang
Isoquercitrin synthesis from grapefruit peels using an immobilized enzyme microreactor
60. W.-J. Li, X. Liu, C.-T. Zhu, J.-X. Wu, S. Sheng, J. Wang, F.-A. Wu
Enzymatic preparation of structural lipids from mulberry seed oil and α -linoleic acid
61. C.P.C. Bong, L.Y. Lim, C.T. Lee, W.S. Ho, J.J. Klemeš
Sustainable supply-demand network for bio-waste management
62. K. Gorazda, B. Tarko, Z. Worek, A.K. Nowak, K. Kulczycka, M. Smol, A. Henclik
Polish Fertilizers from Ash (PolFerAsh technology) - assessment of technical and environmental conditions (BAT, BATNEEC, LCA)
63. C. Garcia, J.L. Moreno, J.A. Pascual, M Ros, F Bastida, T. Hernandez
Soils and organic wastes management: New strategies to increase their ecological capital
64. J. Bacenetti
Heat and cold production from pruning residues of grapevine: Environmental assessment
65. M. Elhag, J. Bahrawi
Economic Evaluation of a Passive Solar Greenhouse Heating System in Crete, Greece
66. A. Chalima, A. Karnaouri, E. Topakas
Utilization of volatile fatty acids for the production of omega-3 by *Cryptocodium cohni*
67. M. Soltani, M. Arezoumandi, F. Sadeghi, M. Sadat Mousavi Pakzad, Z. Chenaparchi
Mechanical properties and durability of concrete with recycled asphalt and silica fume
68. M. Soledad Villaverde, M. Abdala, R. Candal, R. Girolami
Alternative solid fuel for cement kiln based in no special industrial solid waste
69. R Antón, G. Peramato, B. Mayans, R. Camacho-Arévalo, C. García-Delgado, M.L. Segura, C. Escolástico, E. Eymar
Potential of edible fungi to degrade antibiotics present in different solid wastes
70. M. Soltani, M.i Arezoumandi, F. Sadeghi, M. Sadat Mousavi Pakzad, Z. Chenaparchi
Mechanical properties of silica fume concrete
71. M. Kasidoni, K.-J. Haralambous, M. Loizidou
Carbon emissions trading, carbon taxes, and direct regulations: theoretical considerations
72. D.C. Paz-Gómez, S.M Pérez-Moreno, G. Ríos, I. Ruiz-Oria, J.P. Bolívar
Arsenic removal from sludge generated in copper electrolyte purification plant
73. D. Baldantoni, L. Morra, G. Saviello, A. Alfani
Biowaste compost in long-term soil fertilization: nutrients and non-essential elements in crops
74. D. Baldantoni, E. Picariello, A. Bellino, R. Morelli, A. Alfani, F. De Nicola
Soil microbial community during PAH degradation

Poster session

75. E. Papaefstathiou, M. Stylianou, A. Agapiou, Exploring the side effects of vaping (electronic cigarette)
77. Yan Rosen
Enhancing the feasibility of ozonation pretreatment of lignocellulosic waste by reducing ozonation time
79. P. Yang, G.-B. Shao, W.-X. Jiang
Research and preparation of a degradable material
81. J. Milic, M. Curcic, Z. Brnjas, H. Carapina, J. Randjelovic, K. Krinulovic, A. Jovovic
The socio-economic impact timeline in Serbia for persistent organic pollutants (POPs)
83. J. Avdalović, A. Žeradjanin, S. Miletić, O. Božović, T. Šolević Knudsen, D. Stanković, J. Milić, M.M. Vrvic
Investigation of the humic acids evolution during bioremediation of heavy residual fuel oil
85. Kai-Chee Loh, Jingxin Zhang, Yen Wah Tong
Fate of bacterial pathogens and antibiotic resistance genes during anaerobic digestion of food waste by incorporating powdered activated carbon
87. M. Nagler, A. Jäger, B. Hupfauf, H. Insam, S. M. Podmirseg
Defining the best pretreatment method for biomethanisation of sewage sludge and corn straw.
89. S. Brivio, D. Papadrossou, M. Kondis
Sustainable FGT solutions for WtE
91. A. Urueña, D. Díez, G. Antolín
New biofuel production technology to recover used frying oils and power the Seville's urban bus fleet
93. M. Omirou, I. Anastopoulos, D. Fasoula, I. M. Ioannides
Soil nitrous oxide emissions in agricultural systems fertilized with livestock manure, compost and inorganic fertilizers
76. I. Erotokritou, M.A. Stylianou, A. Agapiou, S. Giannopoulos
The potential resource value of coffee residues
78. B. A. Karamanova, A. E. Stoyanova, M. Schipochka, R. K. Stoyanova
Sustainable porous carbons on the basis of biomaterials for supercapacitors
80. F.R. Beltrán, M.U. de la Orden, E. Climent, J. Martínez Urreaga
Effects of process conditions on the effectiveness of solid-state polymerization in the recycling of poly(lactic acid) waste.
82. J. Milić, G. Gojgić-Cvijović, T. Šolević Knudsen, M. Ilić, J. Avdalovic, M. Lješević, M. M. M. Vrvic
Assessment of screening assays as tool for evaluation of bacterial potential for biodegradation of polycyclic aromatic hydrocarbons
84. C. L. B. M da Cruz, A.S. P. Santos, E. Ritter
Study on the viability of incorporation of the water treatment plant sludge in the substrate for the production of native specie the Atlantic Forest (Brazil)
86. T. Klammsteiner, A. Walter, C. Heussler, B. C. Schlick-Steiner, F. M. Steiner, H. Insam
Hermetia illucens (Diptera: Stratiomyidae) larvae in waste valorization and diet-based shifts in their gut microbiome
88. K. Triantafyllidis, P. Samaras, G. Palantzas, E. Tzamos, A. Zouboulis
Application of the pyrolysis technology for industrial and hazardous waste management
90. A. Urueña, J.A. Conesa, D. Díez
The influence of temperature and dolomite catalyst on the pyrolysis of corn stover
92. Yen Wah Tong, Jingxin Zhang, Kai-Chee Loh
Enhancing methane production in anaerobic co-digestion process by anaerobic co-pretreatment
94. E. Ell Bestawy
Stimulatory and / or inhibitory effects of heavy metals-contaminated effluents on biochemical characteristics of some selected cyanobacteria

Poster session

95. S.M.R. Vendramel, S.L. Quiterio, J.J. Chastinet, D.M. Bila, G.L. Sant'Anna Jr.
Enzymatic hydrolysis of floatable fatty wastes from dairy and meaty food-processing industries and further anaerobic digestion
96. V. Diamanti, A. Papadaki, C. Pateraki, H. Papapostolou, D. Koulougliotis, E. Eriotou, N. Kopsahelis
Whey utilization by novel non-dairy industry derived probiotic strains for the production of starter cultures
97. M.J. San José, S. Alvarez, R. López
Thermal treatment of wastes of anaerobic digestion of grape skins by drying-combustion in a conical spouted bed reactor
98. C. Magro, J. Almeida, J.M. Paz-Garcia, E. P. Mateus, A. B. Ribeiro
Prospective energy savings in electro-based technologies – PEM fuel cell
99. A. Chrysargyris, O. Antoniou, A. Tzionis, N. Tzortzakis
Deployment of olive-mill waste as a substitute growing medium component in nurseries
100. A. Chrysargyris, E. Papakuriakou, P. Xylia, N. Tzortzakis
Modulation of copper uptake and toxicity by salinity stress in *Mentha spicata* plants
101. M. Prasad, N. Tzortzakis, M. Gaffney, S. Murphy
Development of a rapid and simple test for ammonium-N determination in anaerobic digestion
102. D. Díez, A. Urueña, G. Antolin
Steam reforming of biomass tar over hydrotalcite catalyst
103. D. Díez, A. Urueña, G. Antolin
Valorization of pig carcasses through their transformation into biofuels
104. E. Ell Bestawy
Efficiency of Immobilized Cyanobacteria in Heavy Metals Removal from Industrial Effluents
105. K. Papadopoulou, K. Papanikola, I. Vaitzos, A. Peppas, A. Bakolas, C. Lytras, G.M Lytras, D. Mathioudakis, H. Pavlopoulos, G. Lyberatos
Valorization of a Food Residue Biomass product as a solid fuel for the production of pellets
106. X. Liu, D. Peng, B. Tang, N. Zhang
A novel ecological sand stabilization material largely utilizing coal refuse: mechanical properties, microstructure and environmental friendly performance
107. Sv. Veleva, Sv. Ivanova, P. Polrolniczak, K. Wasinski, R. K. Stoyanova, A. E. Stoyanova
High-Efficient Magnesium Storage into Eco-Compatible Electrode Materials
108. I. Goudeli, D. Palimeri, A. Vlysidis, A. Vlyssides
Anaerobic digestion of olive mill wastewater using a static granular sludge reactor followed by a plant remediation eco-system
109. M. Basha, A.S. El-Gendy
Vermicomposting of Organic Waste – A Review
110. M. Stylianou, I. Gavriel, A. Zorpas, A. Agapiou
Native plants for the remediation of abandoned sulfide mines in Cyprus
111. R. Sirbu, E. Cadar, A. Tomescu, T. Negreanu Pirjol
Studies regarding polluting agents impact on marine algae biomass from Black Sea
112. J.-W. Koo, T.-M. Hwang, S. Lee
Membrane distillation for shale gas plant water treatment: Effect of membrane fouling
113. E. Salimi, K. Saragas, M. Taheri, E.M. Barampouti, S. Mai, D. Malamis, K. Moustakas, M. Loizidou
The role of enzyme loading on cellulose hydrolysis of food waste
114. J. Žaltauskaitė, M. Praspaliauskas, N. Striūgas
Cannabis sativa as a tool to assess sewage sludge and sewage sludge char suitability for soil fertilization

Poster session

115. R. Dagiliūtė, M. Janionienė, J. Žaltauskaitė
The impact of the packaging recycling on environmental impact reduction from energy use and GHG's Perspective
116. L.Y. Lim, C.P.C. Bong, C.T. Lee, J.S. Lim, J.J. Klemeš
The Potential of Agricultural Vegetative Waste Management System in Smart Agriculture
117. A.D.O. Santos, M.T.L. Nascimento, D.G. Carvalho, J.A. Baptista Neto, D. M. Bila
Evaluation of the presence of Bisphenol A and microplastics in the bottom sediments of Guanabara Bay
118. P. Rusek, K. Borowik, M. Mikos-Szymańska, S. Schab
Development of a technology of innovative microbiologically enriched mineral fertilizers (BIO-FERTIL)
119. C.J. Cobo-Ceacero, C. G. Moreno-Merino, M.T. Cotes-Palomino, Fco. De A. Torres-Fernández, C. Martínez-García
Use of marble sludge waste in the manufacture of eco-friendly materials, applying the principles of the Circular Economy
120. D. Symeonides, P. Loizia, A. A. Zorpas
Tire Waste Management System in Cyprus. Barriers and Improvements using SWOT-PESTEL Models in the framework of circular Economy
121. A. Zdunek, K. Borowik, D. Kołodyńska, Z. Hubicki. M. Wieraszka
Removal of fluoride from aqueous solutions using sewage sludge ash
122. P. Loizia, I. Voukkali, A. A. Zorpas
Why Environmental Management Systems (EMS) cannot be easily adopted from Small Medium Enterprises
123. B. Temporal-Lara, I. Gomez-Lucas, J. Navarro-Pedreño, A.A. Zorpas
Monitoring the composting process through respirometric techniques
124. A. Zdunek, K. Borowik, D. Kołodyńska, Z. Hubicki. K. Kilijanek
Removal of fluoride from aqueous solutions using biomass ash
125. M. Euthimou, S. Zorpa, A.A. Zorpas
Environmental education in primary schools of Cyprus and the proposed of educational approach
126. P. Loizia, I. Voukkali, A. A. Zorpas
Why Environmental Management Systems (EMS) cannot be easily adopted from Small Medium Enterprises
127. O. Muter, I. Perkons, V. Bartkevics
Assessment of biochar as a carrier for biofilm formation and removal of pharmaceuticals from wastewaters
128. O. Muter, G. Khroustalyova, D. Kalderis, A. Sibirny, A. Rapoport
Tools for utilization of distillery industry waste-yeast biomass in bioremediation technologies
129. G. Adam, B. De Vos, A. Mottet, E. Trouvé, P. Delfosse
Ammonia nitrogen recovery and volume reduction of anaerobic digestates by vacuum evaporation without chemical additives
130. M. Teresa Santos, N. Nunes, Â. Martins
Removal of textile dyes with carbon produced from industrial food waste
131. X.G. Ma, J. Tao, J.L. Chang, J. Yang, Q. Tang, T. Luo
Effect of substrate to inoculum ratio on biogas production and microbial community from hemi-solid state batch anaerobic co-digestion of rape straw and dairy manure
132. M.M. Parascanu, M. Puig-Gamero, P. Sánchez, G. Soreanu, J.L. Valverde, L. Sanchez-Silva
Environmental assessment of olive pomace valorisation through combustion processes for energy production
133. R.J. Galán-Arboledas, M.T. Cotes-Palomino, C. Martínez-García, S. Bueno
Ternary diagrams as a tool for developing eco-friendly materials. Relationship between technological properties and microstructure
134. V. Panaretou, D. Malamis, K. Moustakas, E. Ploumistou, D. Karachaliou, M. Loizidou
Challenges for waste management in small islands

Poster session

135. T. Prastitou Merdi
Marine litter: Is the EU legislator doing enough for curbing plastic waste and littering at sea?
136. V. Diamantis, M. D. Koskinari, E. Pallis, P. Charitidis, A. Eftaxias, A. Aivasidis
Biogas production from pressure sterilized organic wastes having a low- or high-lipid content
137. R. Dagiliūtė, K. Bagdonaitė, J. Žaltauskaitė, G. Sujetovienė
Medical waste generation and management: case of Lithuania
138. V. Valinčius, R. Keželis, V. Grigaitienė, P. Valatkevičius
Behaviour of electric arc in plasma chemical reactor during hazardous waste treatment
139. T. Negreanu-Pirjol, B.S. Negreanu-Pirjol, M. Nastac, G.M. Paraschiv, R. Sirbu
Complex valorization of two waste biomasses as biosolid nutrient composite for improving soils quality
140. F.V. Andretti, J.A. Ferreira, C.F. Mannarino
Study of the art state in the analysis of techno economic feasibility of waste-to-energy plant in Rio de Janeiro
141. K. Lasaridi, E. Terzis, A. Georganti -Ntaliapē, S. Fortatos, P. Panteli, Th. Manios
The LIFE Food for Feed Project – An innovative process for transforming hotel's food waste into animal feed
142. K. Lasaridi, Ph. Kyrkitsos, G. Protopapas, T. Charitopoulou, A. Dalamagka, M. Intzeler, Ch. Angelakopoulos
The LIFE REWEEE Project - Development and Demonstration of Waste of Electrical and Electronic Equipment prevention and reuse paradigms
143. S.H. Nam, J.W. Koo, J.W. Sim, E.J. Kim, T.M. Hwang
Characterization of organic foulants in pressure retarded osmosis using fluorescence excitation-emission and PARAFAC
144. S.H. Nam, J.W. Koo, E.J. Kim, T.M. Hwang
Fluorescence Excitation-Emission and PARAFAC to monitor natural organic matter change in pilot scale UV/H₂O₂-GAC process
145. A. López-Uceda, J. Ayuso, A.P. Galvin, J.R. Jiménez
Dimensional changes of Recycled Aggregate from CDW at long term with different gypsum content
146. V. Oliveira, C. Horta, C. Dias-Ferreira
Fertilizing potential of struvite recovered from organic fraction of municipal solid waste
147. M. Noulia, V. Karayannis, E. Lakioti, K. Moustakas, D. Komilis
A questionnaire-based survey on municipal solid waste composting in an agro-industrial area
148. Choah Kwon, Seung Hyo Noh, Hoje Chun, Il Soon Hwang, Byungchan Han
First-Principles Computational Study on Spontaneous Reduction Reaction of Eu³⁺ in a LiCl-KCl Molten Salt
149. G. Palantzas, E. Tzamos, A. Zouboulis
Data, trends and perspectives for the management of ship-generated waste reception port facilities in Greece
150. I. M. Ioannides, I. Anastopoulos, M. Omirou
Citrus industry wastes shift the soil bacterial communities structure in soils
151. C. A. Rueda-Durán, A. R. Velasquez-Barrios, P. A. Marín-Valencia, J. C. Álvarez-Giraldo, E. G. Mogollón-Rincón, R. A. Cardona-Cabarcas, O. H. Giraldo-Osorio, C. A. Cardona-Alzate
Techno-economic evaluation of a polymerization process: impact of degradation potential on production costs of polypropylene using alternative additives
152. F. Aulenta, C. Cruz Viggi, C. Pastor, D. Montecchio, B. Erable, A. Bergel, M. Zeppilli, M. Villano, M. Majone, G. Lyberatos, I. Ntaikou, K. Papadopoulou, G. Antonopoulou, A. Tremouli, R. Lacroix, S. Da Silva, H. Chouchane, A.S. Masmoudi, A. Cherif
Sustainable wastewater treatment coupled to energy recovery with microbial electrochemical technologies: The WE-MET Project

Poster session

153. D. Gusmini, P. Carminati, N. Frison, F. Fatone, E. Ficara
Turning wastewater into bioplastics through microalgal biomass
154. D. Lavouta, L. Zoumpoulakis, F. Zannikos, P. Georgiou
Energy efficiency of plastic waste
155. A. Pilatov, V. Baranov, K. Czajka, H. Viarshyna
Reduction of CO₂ environmental load of biomass thermochemical conversion system using pure oxygen in gasification and combustion
156. A. Mousavi, M. Razgon, V. Angadi, E. Katsou
Z-BRE4K: a novel predictive maintenance platform to eliminate unexpected-breakdowns and extend the life of production systems
157. A. Vlysidis, D. Tsivas, S. Maina, A. Papadaki, A. Koutinas
The LIFE CAB project: Biogas and digestate with controlled ammonia content by a virtuous biowaste cycle with integrated biological and chemical processes
158. S. Malamis, J. Kisser, S. Kappa, K. Moustakas, E. Katsou
HYDROUSA project – Recovering water, materials and energy from non-conventional water sources through nature-based technologies
159. A. Tremouli, I. Karydogiannis, K. Papadopoulou, G. Lyberatos
Stacking of microbial fuel cells for wastewater treatment
160. Z. Aslam, A. Abbas, A. Asghar
Valorisation of fly ash: Zeolite synthesis and its application
161. A. Natsia, E. Tsouko, A. Sigianis, D. Ladakis, A. Papadaki, E. Eriotou, A. Kampioti, N. Kopsahelis
Bacterial cellulose production utilizing Zante currants' side-streams: A preliminary novel biorefinery concept
162. M. Almazrouei, S. Elagroudy, I. Janajreh
Kinetics evaluation of glycerol pyrolysis and high fidelity numerical simulation
163. J. L. Hao, W.S. Lu, Z. K. Chen, Z.K Bao, F. Y Guo, W.Q. Xing
Quantifying construction waste reduction through the application of prefabrication in China
164. M. Kasidoni, K.-J. Haralambous, M. Loizidou
Barriers to deployment of CCS

8.00 - 9.00

Registration

9.00 - 11.00

ROOM 1

Keynote Speakers

Chair: A. Nzihou, I. M. C. Lo

Irene M. C. Lo, Hong Kong University of Science and Technology
"Integrated food waste management with renewable energy production"

David Bolzonella, University of Verona
"The biorefinery of household food waste"

Costas Velis, University of Leeds
"How cities manage waste all over the planet: A global overview through Wasteaware benchmark indicators"

Ange Nzihou, Ecole des Mines d'Albi
"Unravel the structure and reactivity of wood and biowaste biochars"

Mauro Majone, Sapienza University of Rome
"Turning urban biowaste into bioplastics: a half-term overview on RES URBIS project"

Spyros Pavlostathis, Georgia Institute of Technology
"Bioelectrochemical upgrading of anaerobic digestion biogas"

Stephen Smith, Imperial College London
"Potential transfers of organic contaminants to the human foodchain from the use of organic waste materials as fertilizers and soil improvers"

Hinrich Uellendahl, Aalborg University Copenhagen
"Anaerobic digestion – the method of choice for the treatment of organic waste and nutrient recovery"

11.00 - 11.15



Coffee Break

ROOM 1
SESSION IX

Bioprocesses, Biorefineries in waste management I

Chair: I. M. C. Lo, F. Cecchi, A. Koutinas

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| 11.15-11.30 | L. Mojović, D. Mladenović, A. Djukić-Vuković, S. Kocić Tanackov, J. Pejin Two-stage lactic acid fermentation of distillery stillage |
| 11.30-11.45 | M. Patsalou, E. Protopapa, S. Stavrinou, A. Chrysargyris, N. Tzortzakis, I. Vyrides, M. Koutinas Citrus peel waste valorization through a biorefinery strategy for the production of succinic acid, ethanol, methane and fertilizer |
| 11.45-12.00 | F. Baldi, I. Pecorini, E. Albin, R. Iannelli Comparison of one-stage anaerobic digestion and two-stage fermentation process of food waste |
| 12.00-12.15 | Q.A. Nguyen, H-J. Bae Integrated process produces valuable mannose oligosaccharides, mannose and ethanol from coffee residue waste |
| 12.15-12.30 | M. Ramos-Suarez, D. Puri, S. Heaven Solubility enhancement of organic residual solids (ORS) from municipal solid waste (MSW) using enzymes and subsequent production of volatile fatty acids (VFA) and biogas |
| 12.30-12.45 | K. Aboudi, X. Gómez-Quiroga, C.J. Álvarez-Gallego, L.I. Romero-García Acidification as a handicap in the anaerobic digestion of agro-industrial wastes: The role of co-substrate in volatile fatty acids mitigation |
| 12.45-13.00 | J. Anderson Martínez-Ruano, D. L. Restrepo-Serna, E. Carmona, C. A. Cardona-Alzate Effect of co-digestion of milk-whey and potato stem on heat and electricity generation using biogas as an energy vector |
| 13.00-13.15 | D. L. Restrepo-Serna, J. Anderson Martínez-Ruano, C. A. Cardona-Alzate Energy efficiency of biorefinery schemes using sugarcane bagasse as raw material |
| 13.15-13.30 | C. Kennes, M.C. Veiga Bioconversion of syngas into biofuels and chemicals |
| 13.30-13.45 | M.C. Ho, T.Y. Wu Potential use of alkaline hydrogen peroxide in biomass pretreatment and valorization – a review |

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| 13.45-14.00 | N. Kontogianni, E. M. Barampouti, S. Mai, D. Malamis, M. Loizidou Effect of alkaline pretreatments on the enzymatic hydrolysis of wheat straw |
| 14.00-14.15 | A. Piasentin, L. Girotto, G. Moretto, F. Ardolino, F. Cecchi Integrated AcoD system of the organic fraction of MSW and sewage sludge: cases study |
| 14.15-14.30 | G. Kakouras, A. Papadaki, C. Pateraki, A. Koutinas Brewer's spent grain valorisation for the production of microbial oil via fermentation and extraction of value added co-products through biorefinery development |
| 14.15-15.00 | Lunch Break |

ROOM 2

SESSION X

Tools in the field of waste management

Chair: G. Lyberatos, M. Majone, M. Baratieri

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| 11.15-11.30 | A. G. Capodaglio, M.V. Lopez, A. Callegari LCA approach to the evaluation of urban waste sludge disposal options, including resources and materials recovery |
| 11.30-11.45 | A. F. Braña, G. Feijoo-Costa, C. Dias-Ferreira Environmental considerations on MSW collection. A local case of study through LCA application |
| 11.45-12.00 | S. De Meester, A. Tuts, D. Seuntjens, B. Defloor, B. De Gusseme Willingness to pay for environmental performance; the case of decentralised waste treatment systems |
| 12.00-12.15 | O. Skiadi, A. Pantazopoulos, A. Angelis-Dimakis, C. Tsakalou, K. Kutsikos, V. Angelis, A. Alexopoulos A digital industrial solid waste reuse platform for the Balkan region |
| 12.15-12.30 | A. Bourka, M. Dimitropoulou, G. Iliopoulos, S. Spiliotakou Rewarding recycling through a smart city application |
| 12.30-12.45 | M. Maniati, P. Karakasis Why do waste management organizations always defend themselves when planning a project? A guide to overcome opposition and raise public involvement - a small island case study |
| 12.45-13.00 | I. Matino, T. A. Branca, B. Fornai, V. Colla, L. Romaniello Improving the by-products reuse in integrated steelmaking facilities: scenario analyses through the combination of process modelling, simulation and optimization techniques |
| 13.00-13.15 | L.S. Cadavid-Rodríguez, C.E. Agudelo-Morales Solid waste management in a Colombian University |
| 13.15-13.30 | N. Tofalli, C. Gavriil, C. Tofalli, I. Voukkali, S. Zorpa, A. A. Zorpas Measuring environmental performance in primary and secondary schools. The case studies from Cyprus |
| 13.30-13.45 | A. Chabuk, N. Al-Ansari, A. Hazim, H. Musa Hussain, J. Laue, S. Knutsson, R. Pusch Landfill sites selection using MCDM and comparing method of change detection for Babylon Governorate, Iraq |

ROOM 3

SESSION XI

Water-Energy efficiency: From practice to policy

Chair: P. Karanis, M. Papadopoulou, M. Zachariou-Dodou

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| 11.15-11.30 | P. Karanis Cryptosporidium in water and food |
| 11.30-11.45 | S. M. Miron, P. Dutournié, L. Limousy, A. Ponche Ultrafiltration of protein based solution. Study of membrane fouling |
| 11.45-12.00 | N. Yilmaz, C.H. Yardimci, M. Elhag Water quality assessment based on the phytoplankton composition of Buyukcekmece Dam Lake and its influent streams (Istanbul), Turkey |
| 12.00-12.15 | S. Parmaki, I. Vyrides, M.I. Vasquez, I. Hadjiadamou, C.B.M. Barbeitos, F.C. Ferreira, C.A.M. Afonso, C. Drouza, M. Koutinas Valorization of alkaloid containing wastewater: Bioconversion of lupanine into added-value products by newly isolated microorganisms |
| 12.15-12.30 | V. Vasilaki, V.C. Angadi, N. Frison, A. Mousavi, F. Fatone, E. Katsou Assessment of wastewater N ₂ O generation using multivariate techniques |
| 12.30-12.45 | M.P. Papadopoulou, Z. Kalabaliki, V.K. Tsoukala Stress-weighted water footprint assessment of agricultural policies in a water scarce region |
| 12.45-13.00 | M. Tsangas, M. Jecourim, L. Limousy, A. A. Zorpas The application of Analytical Hierocracy Processes in combination with PESTEL-SWOT analysis to assess the hydrocarbons sectors in Cyprus |
| 13.00-13.15 | T. M. Massara, O. T. Komesli, O. Sozudogru, A. E. Yilmaz, S. Bakirdere, E. Katsou The effect of HRT and SRT in the treatment of domestic wastewater by MBR |
| 13.15-13.30 | V. Vasilaki, T. Mattias, V.C. Angadi, P. Sousa, A. Mousavi, E. Katsou Prediction of wastewater N ₂ O emissions using artificial Neural Networks |
| 13.30-13.45 | Lijie Zhang, Haiyan Pei, Liqun Jiang, Qingjie Hou, Zhigang Yang, Ze Yu, Xiaodong Wang Can microalgae cultivated in modified mariculture wastewater become live feeds in aquaculture? |

ROOM 4

SESSION XII

LIFE Programme and Master-class on Horizon 2020: How to win funds for your innovative research projects?

The experience of H2020 & LIFE projects

Chair: P. Kolar, G. Protopapas

11.15-14.15

P. Kolar

Introduction to H2020

G. Protopapas

LIFE Programme - Call 2018 & Establishment and operation of the Greek LIFE Task Force

P. Papazoglou

H2020: General Introduction, Legal & Financial Rules, Fast Track Innovation, SME Instrument, H2020 Prizes, Climate Change and Environment, Participant's Portal, Consortium Agreements and Partner Search Facilities

K. Moustakas, D. Malamis, M. Loizidou

The experience of the NTUA Unit of Environmental Science & Technology in LIFE projects

J. Kisser, E. Katsou, S. Kappa, K. Moustakas, S. Malamis

The H2020 HYDROUSA project: Achieving smart water cycles for decentralized Mediterranean Regions

Discussion

ROOM 1

SESSION XIII

Anaerobic Digestion

Chair: S. Pavlostathis, D. Bolzonella, H. Uellendahl

15.00-15.15

Ji Min, Zhang Bo, Wang Fen, Li Ruying, Zhao Yingxin

Enhancing anaerobic digestion of high-solid sludge with coupled ultrasonic and alkaline pretreatment: Mechanism research and a full-scale experiment

15.15-15.30

B. Valverde-Pérez, A.Z. Zachariae, A.F. Kjeldgaard, Z. Rasouli, W. Xing, A. Palomo, M. D'Este, D. De Francisci, M.L. Pape, B.F. Smets, I. Angelidaki

Valorisation of Effluents from anaerobic digestion as single cell protein – Focus on safe gas supply

15.30-15.45

M.B. Benitez, G. Leite, P. Champagne

Growth of algae and microbiome cultures on anaerobic digester centrate

- 15.45-16.00 Y.K. Cheah, C. Vidal-Antich, J. Dosta, J. Mata-Álvarez
Study of the effects of temperature and pH on acidogenic fermentation process from organic fraction of municipal solid waste
- 16.00-16.15 A. Eftaxias, V. Chatzargyros, C. Michailidis, M.D. Koskinari V. Diamantis, A. Aivasidis
Trace element requirements for the anaerobic digestion of lipid-rich slaughterhouse wastes
- 16.15-16.30 Mimi Wang, Zhining Zhang, Zixiang Sun, Mengmeng Liu, Chen Sun, Weixing Cao
The chemical distributing characteristics and dynamics of iron, cobalt and nickel in 3 different anaerobic digestion digestates
- 16.30-16.45 M. Ahmad, C. Eskicioglu
Fate of pharmaceuticals in single-stage anaerobic and sequential anaerobic/aerobic/anoxic sludge digestion
- 16.45-17.00 K. Haarstad
Wastewater from biogas production
- 17.00-17.15 V. Pastor-Poquet, S. Papirio, J.P. Steyer; E. Trably, J. Rintala, R. Escudié, G. Esposito
High-solids Anaerobic Digestion of the Organic Fraction of Municipal Solid Waste: From Experimental Setup to Model Development
- 17.15-17.30 C.M. Dykstra, S.G. Pavlostathis
Bioelectrochemical systems for anaerobic digester biogas upgrading
- 17.30-17.45 A. Eftaxias, M. D. Koskinari, P. Galimanis, A. Koumara, V. Diamantis, A. Aivasidis
Use of poultry manure as emulsifier for biogas production from used cooking oil
- 17.45-18.00 D. Bacchi, E. Carnevale, F. Freire, G. Francini, L. Lombardi, P. Marques, I. Pecorini
Environmental comparison of different scenarios of energy recovery from organic fraction of municipal solid waste and sewage sludge
- 18.00-18.15 Hyun-Jin Kang, Jeong-Hoon Park, Hee-Deung Park
Development of a moving-bed carrier for stimulating direct interspecies electron transfer for improving anaerobic digestion
- 18.15-18.30 B. A. Alagöz, O. Yenigün, A. Erdinçler
Valorization of maize silage and municipal wastewater sludges:
Energy production enhanced by ultrasonic and microwave pre-treatments

ROOM 2

SESSION XIV

Policy, Prevention, Socio economic Issues and Management in Islands & Isolated Areas

Chair: T. Manios, C. Marouli, C. Dias-Ferreira

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| 15.00-15.15 | A. Anic Vucinic, I. Grcic, I. Melnjak, L. Radetic Impacts of policy decision on municipal solid waste composition in Croatia |
| 15.15-15.30 | C. Tsompanidis, T. Lolos, E. Ieremiadi Methodology for establishment of an integrated and financially self sustainable waste management system - the case study of Pelagonija, Southwest, Vardar and Skopje Regions |
| 15.30-15.45 | C. Marouli Waste management in the European Union: Funding, policy priorities and scientific research |
| 15.45-16.00 | M. Donner, F. Fort, H. De Vries How to design business models for a circular economy? |
| 16.00-16.15 | Mi Zhou, Tao Jiang, Songtao Yang, Xiangxin Xue The effect of extraction of vanadium chromium slag adding on Cr-bearing vanadium and titanium sinter magnetite |
| 16.15-16.30 | Minhua Su, Lingjun Kong, Jinfeng Tang, Hongguo Zhang, Yu Liu, Diyun Chen Utilization of Al-/Fe-/Si- ceramic matrices for cadmium detoxification in wastes |
| 16.30-16.45 | G. Tavoularis, T. Manios, A. Maragkaki, F. Galliou, C. Tsompanidis, E. Ieremiadi Innovative exploitation of Solar Energy for optimizing Waste Management |
| 16.45-17.00 | V. Sousa, C. Dias-Ferreira, I. Meireles Benchmarking operational efficiency in waste collection: Discussion of current approaches and possible alternatives |
| 17.00-17.15 | A.A. Neves, M. Kasidoni, K. Moustakas, D. Malamis, I. Nunes, C. Dias-Ferreira Pay-as-you-throw systems: a review of pilot research and implementation studies |
| 17.15-17.30 | G. Viniegra-González, V. del Rio-Guerra, M.I. Estrada-Alvarado, L.A. Cira-Chávez The social and economic impact of agave waste utilization in Mexican liquor industries |
| 17.30-17.45 | C.C.G. Andrade, P.D.B. Coelho, L.C.G.M. Teixeira Benefits of the selective collection in the public company Companhia Docas do Pará - CDP, in the Amazon / Brazil |

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| 17.45-18.00 | M. Struk Financial incentives and municipal solid waste expenditures |
| 18.00-18.15 | D. Hidago, F. López, F. Corona, J.M. Martín-Marroquín A novel initiative for recovery and restoration of illegal dumps in rural areas |
| 18.15-18.30 | S. Lefèvre, O. Boutin, J.H. Ferrasse, C. Chubilleau, A. Viand Wet air oxidation for the treatment of solid wastes generated on autarkic sites |
| 18.30-18.45 | P.-M. Stathatou, P. Dedousis, G. Arampatzis, H. Grigoropoulou, D. Assimacopoulos Energy savings & reduced emissions in combined natural & engineered systems for wastewater treatment & reuse: The WWTP of Antiparos Island, Greece |
| 18.45-19.00 | M. K. Doula, C. Kolovos, A. Papadopoulos Irrigation water use in Mediterranean islands – Fresh water or wastewater reuse? |
| 19.00-19.15 | A. Anic Vucinic, D. Perovic, H. Dokoza, V. Premur The impact of tourism on separate waste collection in Zadar County, Republic of Croatia |
| 19.15-19.30 | I. Voukkali, J. Navarro-Pedreño, I. Gomez-Lucas, A. A. Zorpas Measuring metabolism of an area |

ROOM 3

SESSION XV

**Food waste management, bioeconomy, food industry,
Source Separation schemes**

Chair: K. Abeliotis, E. Katsou, M. Kwapinska

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| 15.00-15.15 | T. Kritikou, D. Panagiotakos, K. Lasaridi Determinants of food waste behaviour in Greek households |
| 15.15-15.30 | K. Papadopoulou, H. Pavlopoulos, P. Georgiou, A. Peppas, L. Zoumpoulakis, G. Lyberatos Production of an adsorbent from dried and shredded Household Food Waste |
| 15.30-15.45 | C. Galletti, F.A. Deorsola, N. Russo, D. Fino Removal of heavy metals from industrial waste on rice husk in an adsorbent reactor |
| 15.45-16.00 | K. Abeliotis, K. Lasaridi, C. Chroni, E. Terzis, F. Galliou, Th. Manios Environmental impact assessment of a solar drying unit for the production of animal feed from food waste |
| 16.00-16.15 | K. Kaderides, L. Papaoikonomou, I. Patsopoulou, L. Sorovakou, A.M. Goula Extract from pomegranate waste as an alternative natural antioxidant in foods |
| 16.15-16.30 | D. San Martin, M. Orive, E. Martinez, B. Iñarra, A. Estévez, R. Fenollosa, C. García, A.M. De Smet, J. Zufía Valorisation of brewers' yeast and spent grain as second-generation feedstuff for aquaculture feed |
| 16.30-16.45 | L. Papaoikonomou, K. Labanaris, K. Kaderides, A.M. Goula Batch and continuous adsorption of phenolic compounds from olive mill wastewater using a novel low cost biosorbent |
| 16.45-17.00 | L.J. Kong, M.N. Han, D.Y. Chen, K. Shih Fishery derived bio-phosphate for uranium immobilization and its phase transformation |
| 17.00-17.15 | E. I. Sotiropoulou, M. Liouni, A. C. Calokerinos, E. T. Nerantzis Single cell protein from grape pomace: Sustainability in the winery to value-added food |
| 17.15-17.30 | G. Mancini, A. Luciano, P. Viotti, D. Fino Evaluation of ASR landfill impact through lysimetric tests |
| 17.30-17.45 | M. Kwapinska, D. A. Agar, J. J. Leahy Distribution of ash forming elements during pyrolysis of municipal wastewater sludge and sludge from milk processing factories |

- 17.45-18.00 H.S. Jeswani, A. Apte, V. Cheernam, M. Kamat, S. Kamat, P. Kashikar
Utilization of kitchen waste for generation of fuel
- 18.00-18.15 V. Sousa, I. Meireles, V. Oliveira, C. Dias-Ferreira
Prediction performance of separate collection of packaging waste yields using Support Vector Machines

ROOM 4

SESSION XVI

Waste & Resource Recovery II

Chair: A.G. Capodaglio, D. Fino, A. Karamanov


- 15.00-15.15 E. M. A. Hamzawy, A. Karamanov, H. Darwish, E. Karamanova
Effect of CaF_2 addition on the densification and the foaming of sintered glass-ceramics by metallurgical slag
- 15.15-15.30 S. Safari, D. Egas, E. Katsou, S. Malamis
Removal of phosphate using fly ash and chemically modified zeolite
- 15.30-15.45 P. Gikas, S. Argyropoulos
Pacification of Fly Ash by Geochemical Processing
- 15.45-16.00 E. Karamanova, G. Avdeev, S. Atanasova-Vladimirova, A. Karamanov
Novel iron-rich tiling ceramic from copper flotation waste
- 16.00-16.15 G. Antonopoulou, I. Ntaikou, M. Alexandropoulou, A. Tremouli, C. Pastore, L. Bitonto, S. Bebelis, G. Lyberatos
Using household food waste as a source of energy in a single-chamber microbial fuel cell

- 16.15-16.30 J. Soussi, A. Jada, K. Jradi
Removal of calcium ions from water and its conversion to metal carbonate-cellulose nanofibers composites, by adsorption-complexation-precipitation method
- 16.30-16.45 M. Mikos-Szymańska, S. Schab, P. Rusek, K. Borowik
Preliminary study of a method for obtaining brown-coal and biochar based granular compound fertilizer
- 16.45-17.00 V. Conca, C. Da Ros, A.L. Eusebi, N. Frison, M. Tartini, L. Girotto, A. Piasentin, F. Fatone
Full-scale nitrogen removal and phosphorus recovery from reject water via SCENA system
- 17.00-17.15 M. Ribeiro de Jesus, P. R. M. Silva, P. P. Borges, E. de Robertis, L. N. Batista
Conversion of solid waste biomass to nitrogen rich biochar using aromatic amine
- 17.15-17.30 T.T. Shen, R.A. de Toledo, Y.Y. Tang, H. Shim
Sewage sludge derived biochar accelerates toluene removal by *Pseudomonas plecoglossicida*
- 17.30-17.45 C.P. Tavera, P. Gauthier-Maradei, M. Capron
Improvement of the production of aromatic compounds obtained from the pyrolysis of scrap tire rubber using heteropolyacids-based catalysts
- 17.45-18.00 F. Palmieri, C. Giosuè, A.L. Eusebi, N. Frison, F. Fatone, F. Tittarelli
Use of recovered resources in construction industry: cellulose fibres from urban wastewater
- 18.00-18.15 Y. Zhou, M. Fan, E. Katsou
Valorisation of municipal wastes through development of recovered sludge cellulose/biopolymer composites
- 18.15-18.30 A. Botturi, N. Frison, C. Giosuè, A. L. Eusebi, F. Merzari, L. Fiori, F. Fatone
Innovative Treatment of Combined Sewer Overflow and prespective of hydrochar reuse for pollutants adsorption

ROOM 1
SESSION XVII

Waste-to-Energy

Chair: K. Aravossis, M. Loizidou, S. Smith

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| 9.15-9.30 | K. Aravossis, N. Themelis Waste to Energy as part of an efficient integrated Waste Management System |
| 9.30-9.45 | M. Baratieri Energetic Valorization of gasification by-products: Experiences from the NEXT project |
| 9.45-10.00 | D. Āriņa, R. Bendere, J. Kalnačs Waste products – RDF or SRF as energy source in EU |
| 10.00-10.15 | F. Viganò, S. Sridharan, D. Di Bona Advanced waste-to-energy plant design for enhanced electricity production |
| 10.15-10.30 | Y. S. Montenegro Camacho, G. Mancini, F. Deorsola, D. Fino Role of the particle size on the yield of hazelnut shell pyrolysis products |
| 10.30-10.45 | S. Hemidat, M. Saidan, A. Nassour, M. Nelles Potential of RDF production as alternative fuel for cement industries in Jordan |
| 10.45-11.00 | Jingxin Zhang, Kai-Chee Loh, Yen Wah Tong Optimization and evaluation of an integrated anaerobic digestion waste-to-energy system for energy recovery from food waste |
| 11.00-11.15 | Yong-Seong Jeong, Young-Kon Choi, Bo-Sung Kang, Joo-Sik Kim Air and steam gasification of PE in a new-type three-stage gasifier with in-situ regeneration of activated carbon used as tar removal agent |
| 11.15-11.30 | C. De La Paz LIFE: waste-to-energy good practices |
| 11.30-12.00 |  Coffee Break |
| 12.00-12.15 | M. Nasrullah, M. Lai, C. Ferraro, I. Schiavi, S. Tusacchiu, E. Reggio GreenPlasma: a disruptive small-scale concept of end-to-end waste-to-energy system for treating solid waste with plasma pyrolysis technology |

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| 12.15-12.30 | M. Puig-Gamero, J. Argudo-Santamaria, J.L. Valverde, P. Sánchez, L. Sánchez-Silva Simulation of methanol synthesis from syngas obtained through biomass gasification using Aspen Plus® |
| 12.30-12.45 | B. D. Škrbić, V. B. Marinković, S. B. Spaić, V.J. Milanko, S. Lj. Branovački Emissions of polycyclic aromatic hydrocarbons from combustion and thermal decomposition of the poplar wood pellets and sawdust |
| 12.45-13.00 | N. Reyna-Bensusan, S.R. Smith, D.C. Wilson The global impact of uncontrolled burning of waste |
| 13.00-13.15 | A. Tamošiūnas, D. Gimžauskaitė, R. Uscila, M. Aikas A comparative study on syngas production from crude glycerol by utilizing DC arc plasma |
| 13.15-13.30 | E. Yilmaz, M. Wzorek, R. Junga Characterisation of thermal processing of olive mill wastes |
| 13.30-13.45 | M. Fernández-Delgado Juárez, G. Fabiani, T. Mazzier, M. Gómez-Brandón, H. Insam Reclamation of acid soils with biomass ashes from pyrolytic wood liquefaction |
| 14.00-15.00 | Lunch Break |

ROOM 2

Recycling, Waste & Resource Recovery

Chair: J. Kisser, P. Gikas, V. Sousa

SESSION XVIII

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|-------------|--|
| 9.15-9.30 | Le Fang, Jiang-shan Li, Chi Sun Poon Phosphorus recovery from incinerated sewage sludge ash (ISSA): a two step leaching method |
| 9.30-9.45 | F. Corona, D. Hidalgo, J.M. Martín-Marroquín, S. Sanz-Bedate, G. Antolín Study of the crystallisation reaction behaviour to obtain struvite |
| 9.45-10.00 | R. Warrings Iron and steel stock in Austria – Bottom up analysis |
| 10.00-10.15 | M. Notarnicola, M. Dalessandro, S. De Gisi, L. Romaniello, F. Todaro Materials recovery from residues of integrated steel making process: experimental investigation on briquettes production |
| 10.15-10.30 | Na Zhang, Le Wu, Xiaoming Liu, Yihe Zhang Hydration characteristics of silica-alumina based cementitious materials composed of steel slag |
| 10.30-10.45 | Mengge Dong, Xiangxin Xue Thermal neutron shielding performance and mechanism of a novel, low cost material: Boron-rich slag |
| 10.45-11.00 | C.A. Young, A. Das Mining sustainability by water treatment, tailings repurposing and slag recycling |
| 11.00-11.15 | V. Funari, H. I. Gomes, M. Cappelletti, S. Fedi, E. Dinelli, M. Rogerson, W. M. Mayes Bioleaching of fly ash and bottom ash from municipal solid waste incineration for metal recovery |
| 11.15-11.30 | G. Vassallo, C. Zehetbauer, J. Kisser, H. Gattringer Greywater purification in prefabricated façade elements derived from construction and demolition waste |
| 11.30-12.00 |  Coffee Break |
| 12.00-12.15 | Xiuqing Li, Changhui Wang, Yuansheng Pei Research on recycling of drinking water treatment residuals in environmental remediation: The past and future |
| 12.15-12.30 | Xiangxin Xue, Mi Zhou, Jinling Yang A novel resourceful treatment of the high sodium content residue from sodium salt roasting-water leaching vanadium extraction technique |

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| 12.30-12.45 | Y. Fu, M.M. Su Hydrolysis characteristics of poly-Ti-Fe (M-PTF) coagulant from a solid waste and its contribution to coagulation effect |
| 12.45-13.00 | M. M. Fouad, T. M. A. Razek, A. S. El-Gendy Coagulants recovery from water works waste: sustainable implementation challenges |
| 13.00-13.15 | E. Pantazopoulou, A. Zouboulis Chromium recovery from tannery sludge and its ash based on hydrometallurgical leaching |
| 13.15-13.30 | C. Kwon, B. C. Han First-Principles computational study on the electrochemical recycling of used nuclear fuels through pyroprocessing technology in molten salt media |
| 13.30-13.45 | J. Raček, J. Ševčík, R. Komendová, J. Kučerík, P. Hlavínek Heavy metal fixation in biochar after microwave pyrolysis of sewage sludge |
| 13.45-14.00 | M.V.A. Florea, L.C. Quaas, H.J.H. Brouwers Internal chloride binding of OPC pastes: modelling using binding isotherms |

ROOM 3

SESSION XIX

Bioprocesses, Biorefineries in waste management II

Chair: C. Cardona, P. Champagne, A. Djukic-Vukovic

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| 9.15-9.30 | Fan Zhang, Fang-Qin Wang, Jin-Zheng Wang, Chang-Tong Zhu, Jun Wang Enzyme membrane reactor enhances isoquercitrin production by the conversion of rutin from grapefruit peel extract |
| 9.30-9.45 | J. Pejin, M. Radosavljević, M. Pribić, S. Kocić-Tanackov, D. Mladenović, A. Djukić-Vuković, L. Mojović Usage of food industry by-products as raw materials in lactic acid fermentation |
| 9.45-10.00 | A. Djukić-Vuković, D. Mladenović, S. Lazović, S. Kocić-Tanackov, J. Pejin, L. Mojović Low cost non-thermal plasma treatment of distillery wastewater for lactic acid fermentation |
| 10.00-10.15 | E. Carmona Garcia, J. A. Poveda Giraldo, C. A. Cardona Alzate Thermochemical and Biochemical routes to produce energy from residues: The case of Pinus patula as raw material for direct bioenergy and ethanol production |
| 10.15-10.30 | A. Sthefanía Caballero, J. Miguel Romero, E. Castro, C. Ariel Cardona Application of supercritical fluids for polyphenolic compounds extraction from olive pomace |
| 10.30-10.45 | J.-Z. Wang, W.-M. Song, W.-J. Li, J. Wang, S. Sheng, F.-A. Wu Microwave irradiation enhances enzymatic interesterification of fatty acids in silkworm pupae oil triglycerides |
| 10.45-11.00 | E. Nikolaivits, A. Agrafiotis, E. Baira, N. Fokialakis, E. Topakas Potential of marine-derived mesophilic fungi for the Bioremediation of 2,4- dichlorophenol-contaminated wastewaters |
| 11.00-11.15 | V. Sdrallis, S. Maina, A. Vlysidis, D. Ladakis, S. Papanikolaou, A. Machado de Castro, A. Koutinas Enhanced 2,3-butanediol production by Enterobacter ludwigii in fed-batch and continuous culture: Substrate and product inhibition from sugarcane |
| 11.15-11.30 | A. Velásquez-Barrios, C. Rueda-Duran, E. Mogollón, C. A. Cardona-Alzate Analysis of the environmental impact using the Waste Reduction Algorithm WAR in polypropylene process production by applying grade Transitions strategies |
| 11.30-12.00 |  Coffee Break |
| 12.00-12.15 | S. Maina, D. Ladakis, S. Papanikolaou, A. M. Castro, A. Koutinas Valorization of by-products from soybean-based biodiesel production plant for 1,3-propanediol production |

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| 12.15-12.30 | Z. Noorimotlagh, N. Jaafarzadeh Haghghi, M. Ahmadi, S. Abbas Mirzaee, F. Rahim The possible DNA damage induced by environmental organic compounds: a case of Nonylphenol |
| 12.30-12.45 | T. Phenrat, P. Teeratitayangkul Phytoremediation of illegally dumped petroleum hydrocarbon-contaminated wastewater using vetiver (<i>Vetiveria zizanioides</i> (L.) Nash) |
| 12.45-13.00 | T. M. Massara, O. T. Komesli, O. Sozudogru, A. E. Yilmaz, M. T. Yilmaz, E. Katsou Investigation of the effectiveness of electrooxidation for the treatment of domestic wastewater |
| 13.00-13.15 | A. Papadaki, E. Boviatsi, N. Kopsahelis, G.J. Nychas, J.A.C. da Silva, D.M.G. Freire, A.A. Koutinas Biolubricants production via enzymatic conversion of microbial oil produced through the valorisation of sugarcane molasses |
| 13.15-13.30 | T. M. Massara, A. E. Yilmaz, O. T. Komesli, E. Katsou Applications of electrochemical treatment for domestic wastewater: A review |

ROOM 4

SESSION XX

Agricultural Waste Management

Chair: N. Gontard, N. Tzortzakis, M. Doula

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|-------------|---|
| 9.15-9.30 | J. Pesonen, P. Myllymäki, T. Hu, H. Prokkola, S. Tuomikoski Use of calcined dolomite as chemical coagulant in the simultaneous removal of nitrogen and phosphorus |
| 9.30-9.45 | E. Hatzigiannakis, E. Tziritis, N. Katirani, A. Filippidis The use of HEU-type zeolitic tuff in the management of agricultural nitrate load: Experimental study on soil and vadose zone leachates |
| 9.45-10.00 | B. Mayans, R. Camacho-Arévalo, C. Garcia-Delgado, R. Antón, C. Escolástico, M.L. Segura, E. Eymar Removal of sulfonamides from urban wastewaters by fungi of genus <i>Pleurotus</i> |
| 10.00-10.15 | S. Kosmidis, M. K. Doula, A. Assimakopoulou, C. Kolovos, Y. Troyanos, A. Papadopoulos, P. Kostopoulos Pepper cultivation on a substrate consisting of soil, natural zeolite and olive mill waste sludge-Changes in soil properties |

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| 10.15-10.30 | A. Simon-Masseron, C. Raynaud, V. Simon Valorization of agricultural by-products with zeolites |
| 10.30-10.45 | M. Casellas, A. Prorot, R. Farges, A. Gharzouni, S. Rossignol, P. Bressolier Comparison of two valorization processes of wastes generated by fruit waste antioxidant compounds extraction |
| 10.45-11.00 | G.K. Lamprou, A. Vlysidis, A.G. Vlyssides Extraction of polyphenols from olive leaves and hydrolysis of oleuropein for the production of 3-hydroxytyrosol |
| 11.00-11.15 | E. Anastasopoulou, A. Petrou, D. Makris, C. G. Biliaderis, I. Mourtzinou Cyclodextrins as co-solvents for the extraction of polyphenols from olive leaf |
| 11.15-11.30 | R. Camacho-Arévalo, J. Gómez-Hernández, B. Mayans, R. Antón, C. Escolástico, C. Garcia-Delgado, E. Eymar Organic wastes for biostimulation of <i>Agaricus bisporus</i> and <i>Pleurotus ostreatus</i> |
| 11.30-12.00 |  Coffee Break |
| 12.00-12.15 | S. Sheng, J. Wang, S.-Y. Wu, J.-Z. Wang, F.-A. Wu, J. Wang Comparisons of pupae oil fatty acids composition and development parameters in a mulberry- and artificial diet- fed insect pest, <i>Spodoptera litura</i> |
| 12.15-12.30 | J.L. Rocha, C. Dias-Ferreira Phosphorus flows in the Portuguese livestock and agriculture systems: A roadmap towards sustainability |
| 12.30-12.45 | K.H.D. Perera, H.S.M. Pieris A physico-chemical study of husks of different varieties of rice grown in Sri Lanka |
| 12.45-13.00 | K. Bhaskar One size does not fit all: Different types of biomass power plants in India |
| 13.00-13.15 | A. Krokou, M. Stylianou, A. Agapiou Environmental aspects of carob tree (<i>Ceratonia siliqua</i> L.) |
| 13.15-13.30 | M. Elhag, S. B. Boteva Conceptual assessment of energy input-output analysis and data envelopment analysis of greenhouse crops in Crete Island, Greece. |

ROOM 1

SESSION XXI

Hazardous Waste Management

Chair: K. Moustakas, G. Mancini, A. Jada

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| 15.00-15.15 | N. Russo, D. Fino, M. Piumetti, G. Mancini, G. Saracco The use of the clinoptilolite for wastewater remediation |
| 15.15-15.30 | W. Hyk, K. Kitka Heavy metal removal from wastewater by ferrogels |
| 15.30-15.45 | M. Elhag, A. A. M. Al-Ghamdi, H. K. Galal, A. Dahlan Evaluation of Aloe Vera L. as phytoremediator of heavy metal contaminated soils in arid environments |
| 15.45-16.00 | I. Hachilif, A. Jada Removal of metallic ions from water by use of PS-PEO diblock copolymer stabilized magnetite particles |
| 16.00-16.15 | R.N. Mutafela, W. Hogland Physico-chemical characterisation of fine fraction materials from a Swedish Glassworks dumpsite |
| 16.15-16.30 | K. Schollbach, Q. Alam, V. Caprai, S.R. van der Laan, C.J.G. van Hoek, H.J.H. Bouwers Investigating the mineralogy of bottom ash using XRD and PARC |
| 16.30-16.45 | H. Jung, B. C. Han First principles computational study on hydrolysis of hazardous chemicals phosphorus trichloride and oxychloride (PCl_3 and POCl_3) catalyzed by molecular water clusters |
| 16.45-17.00 | R. Anwar, M. Ahmed, P. Ziemkiewicz, L.-S. Lin Feasibility of Utilizing Acid Mine Drainage Sludge in an Innovative Iron-based Wastewater Treatment Process |
| 17.00-17.15 | G. Pavlidis, H. Karasali, M. Doula, E. Ploumistou, D. Malamis, K. Moustakas Hazardous agricultural waste in Greece: Current status and future perspectives |
| 17.15-17.30 | U V Adegbotolu, K Yates, J Njuguna, K Matthews Hazardous material sustainable management: Case study on spent oil based drilling fluid and cutting |
| 17.30-17.45 | N. Ardeleanu, G. Lazar, R. Ionce Remediation of contaminated mining sites to halt the loss of biodiversity and ecosystem services |

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| 17.45-18.00 | A. Neoklis, A.A. Zorpas Development of a protocol to defined end of waste criteria regarding the use of tire pyrolysis oil in the framework of energy recovery |
| 18.00-18.15 | Byeong-Kyu Lee, Ryeo Gyeong Youn, Sang Yong Jang, Yongsun Im Proposed waste classification criteria of chemicals released from chemical accidents |
| 18.15-18.30 | E. S. Kocoglu, O. Sozudogru, O. T. Komesli, A. E. Yilmaz, T. Massara, E. Katsou, S. Bakirdere Accurate and sensitive simultaneous determination of drug active compound, pesticides, hormones and endocrine disruptor compounds in wastewater samples using GC-MS after dispersive liquid-liquid microextraction |
| 18.30-19.00 | CLOSING SESSION: Conclusions from each Session |

ROOM 2

SESSION XXII

Biofuels from Waste

Chair: A. Vlyssides, L. Lombardi, S. Vakalis

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|-------------|--|
| 15.00-15.15 | E. Giannini Renewable energy and fuel production: legal framework and challenges |
| 15.15-15.30 | Zhao-Xin Liu, Bin-Peng Tang, Bo Wang, Sheng Sheng, Fu-An Wu, Jun Wang Inositol enhances lipid production by Schizochytrium limacinum SR21 using defatted silkworm pupae hydrolysate |
| 15.30-15.45 | E.J. Cho, H.-J. Bae Transformation of cheaper mangosteen pericarp waste into bioethanol and chemicals |
| 15.45-16.00 | E. Ranieri, A. C. Ranieri, P. Gikas Solid recovered fuel production from municipal solid waste: a tourist area plant case study |
| 16.00-16.15 | Y. Gerchman, H. Abu Tayeh, H. Azaizeh Valorization olive mill solid waste to ethanol by microwave pretreatment and enzymatic saccharification |

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| 16.15-16.30 | L. di Bitonto, V. Locaputo, C. Pastore Liquid fuel from sewage sludge through direct acid ethanolsis |
| 16.30-16.45 | J. Raček, T. Chorazy, V. Novák, J. Čáslavský, P. Hlavínek Energy efficiency from dry sewage sludge before and after low-temperature microwave pyrolysis |
| 16.45-17.00 | Zhigang Yang, Haiyan Pei, Changliang Nie, Qingjie Hou, Yuting Wang, Lijie Zhang, Shasha Zhang Combining photosynthetic microbial fuel cell with photobioreactor for bioenergy recovery from anaerobically digested effluent from food waste |
| 17.00-17.15 | M. T. Santos, T. M. Cabrita Biogas analysis of landfills in Portugal |
| 17.15-17.30 | A. Orfanoudaki, G. Makridakis, A. Maragkaki, M. Fountoulakis, T. Manios Anaerobic co-digestion of liquid pig manure with coffee residues for enhanced biogas production |

ROOM 3

SESSION XXIII

Characterisation of Waste Residues

Chair: L. Lemee, A. Zorpas

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|-------------|--|
| 15.00-15.15 | B. Abylkhani, R. Otarov, B. Aiyymbetov, A. Yagofarova, D. Tokmurzin, C. Venetis, S. Pouloupoulos, Y. Sarbassov, V. Inglezakis Astana city municipal solid waste characterization |
| 15.15-15.30 | P. Martel-Naquin, G. Jean, J. Lacour, R. Bayard Characterization and quantification campaign of household waste from Cap-Haitien (Haiti), in order to size management channels |
| 15.30-15.45 | L. Lemee, I. Gassam, C. Tu Vu, M. Soubrand, M. Casellas Molecular characterisation of fertilizing materials of residual origin for a better understanding of interactions with pollutants |
| 15.45-16.00 | L. Luyckx, G.J. de Leeuw, J. Van Caneghem Characterisation of poultry litter ash in view of its valorisation potential |
| 16.00-16.15 | M. Gómez, F. Corona, D. Hidalgo Variations in the properties of leachate according to landfill age |

- 16.15-16.30 J. Faitli, S. Nagy, R. Romenda, I. Gombkötő, L. Bokányi, L. Barna
Analysis of RMSW deposited a decade ago for later “Landfill Mining”
- 16.30-16.45 A. Qorbani Shahnajfi, M. Jalili Ghazizade
Generated waste management in iron melting industry: quantitative and qualitative identification, classification, coding and disposal (Case study: Isfahan iron melting plant)
- 16.45-17.00 R. Skvorčinskienė, N. Striūgas, K. Zakarauskas, R. Navakas, R. Paulauskas
Investigation of waste fishing gear pyrolysis
- 17.00-17.15 P. Scarponi, A. Costa Devoti, A. Volpi Ghirardini, C. Cavinato
Preliminary evaluation of *Scenedesmus Obliquus* growth on organic solid waste digestate, with different mechanical pretreatment
- 17.15-17.30 G. Batalha, P. Horgue, R. Guibert, S. Pommier, G. Debenest
Effective transport parameters determination for dry anaerobic process
- 17.30-17.45 G. Cecchi, L. Cutroneo, S. Di Piazza, G. Greco, G. Vagge, M. Faga, M. Zotti, M. Capello
Fungi as potential tool of polluted port sediment remediation
- 17.45-18.00 L. El Fels, L. Lemee, M. Hafidi
Assessment of lignin compounds during composting of sewage sludge using pyrolysis-GC/MS

ROOM 4
SESSION XXIV

Sludge Management

Chair: A. Zouboulis, F. Fatone, K.-J. Haralambous

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|-------------|---|
| 15.00-15.15 | Zehua Ji, Yuansheng Pei Dynamic adsorption behaviors of Pb_{2+} under complex conditions in sludge-based biochar fixed-bed system: breakthrough curve characteristics and parameters |
| 15.15-15.30 | P. Hartwig Efficient technology for the combined treatment of waste water and solid waste - the DUPLEX-Technology |
| 15.30-15.45 | L.H. Lee, T.Y. Wu, K.Y. Ng, K.P.Y. Shak, M.N. Nguyen, W.H. Teoh Sustainable valorization of wastewater sludge into organic fertilizer through vermicomposting process |
| 15.45-16.00 | M. Jouini, T.V Rakotonimaro, M. Benzaazoua, T. Genty, C.M. Neculita Stability of metal-rich solids from laboratory multi-step treatment system for ferriferous acid mine drainage |
| 16.00-16.15 | A. Cerutti, G. Campo, M.C. Zanetti, L. Polimeno, G. Scibilia, E. Lorenzi, B. Ruffino Effect of the Hydraulic Retention Time (HRT) on the efficiency of a two-stage anaerobic digestion with intermediate treatments for Waste Activated Sludge (WAS) |
| 16.15-16.30 | N. Frison, V. Conca, C. Da Ros, A.L. Eusebi, M. Tartini, L. Girotto, A. Piasentin, F. Fatone Scale-up of the P and PHA recovery from cellulosic sludge via SCEPPHAR system: first performances from Carbonera WWTP |
| 16.30-16.45 | S. De Gisi, A. Gherghel, G. Iannone, M. Notarnicola, C. Teodosiu Evaluating the greenhouse gas emissions of a municipal wastewater treatment plant with sludge incineration |
| 16.45-17.00 | S. Werle Thermal treatment of sewage sludge within a circular economy perspective: A Polish case study |
| 17.00-17.15 | D. Cingolani, A. Foglia, G. Cipolletta, N. Frison, A.L. Eusebi, F. Fatone Integrated pilot-scale Anaerobic Membrane Bioreactor and acidogenic sludge fermentation to treat low-loaded municipal wastewater |

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| 17.15-17.30 | E. Samara, Th. Matsi, A. Zdragas, N. Barbayiannis Use of clay minerals for reducing sewage sludge's microbial load and nitrogen losses |
| 17.30-17.45 | V. Bobade, J. Christophe Baudez, G. Evans, N. Eshtiaghi Monitoring rheology as a tool for measuring the effective shear rate in the Bubble Columns |

Note: Coffee break will also be available during the afternoon sessions on 13th, 14th & 15th June.



NAXOS2018



6th International Conference on
Sustainable Solid Waste
Management

13-16 June 2018

Naxos, Greece

National Technical University of Athens
School of Chemical Engineering
Unit of Environmental Science & Technology

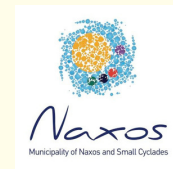
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