

Programme

1st International Conference on Sustainable Chemical & Environmental Engineering

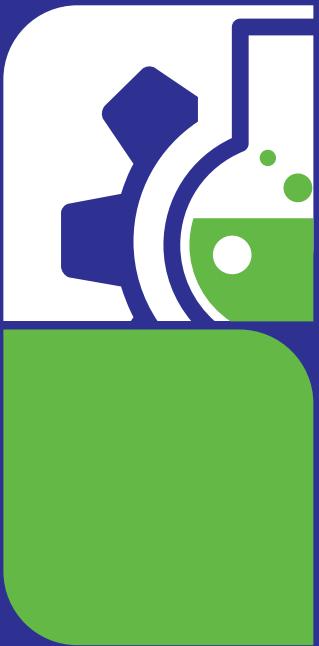
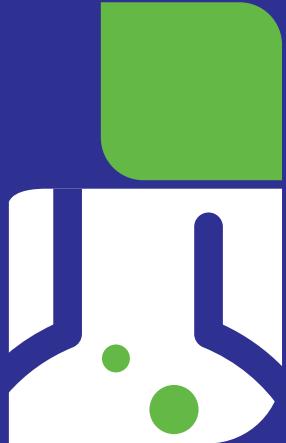


31st Aug - 4th Sep 2022

Rethymno, Crete, Greece

hybrid event

www.susteng.eu



LIFE B2E4sustainable-WWTP



www.biosolids2energy.eu

Dear friends and colleagues,

I am pleased to welcome you to the **1st International Conference on Sustainable Chemical and Environmental Engineering**, which will be held in the town of Rethymno, on the island of Crete, Greece, between **31st August to 4th September 2022**. The conference is organized by the "Design of Environmental Processes Laboratory", of the School of Chemical and Environmental Engineering, Technical University of Crete, with the support of the LIFE Programme and of the Green Fund.

The 1st International Conference on Sustainable Chemical and Environmental Engineering will take place both with **physical** and **virtual** presence.

The conference aims to encourage the exchange of knowledge between academicians, scientists and engineers on hot issues and current developments in chemical and environmental engineering through sustainable perspective. The participants will have the opportunity to present their recent research findings on an extended spectrum of conference topics and be informed about new challenges, future trends, and technological innovations on sustainable processes following the principles of circular economy.

One of the primary aims of the conference is to communicate to the public and to the relative stakeholders the findings of the LIFE B2E4Sustainable-WWTP project (LIFE16 ENV/GR/000298), with title: "New concept for energy self-sustainable wastewater treatment process and biosolids management". The conference participants will also have the opportunity to visit the demo site of the aforementioned LIFE project, at Rethymno municipal wastewater treatment plant.

After the completion of the conference, all abstracts/full papers will be published in the SUSTENG 2022 Conference Proceedings with ISBN number.

The conference Chair

Petros Gikas

Professor

Head of the "Design of Environmental Processes Lab"

School of Chemical and Environmental Engineering

Technical University of Crete



1. Adsorption processes (Part I)
2. Circular Economy/Recycling & Reuse
3. Biotechnology/CO₂Management
4. Air Pollution, Emissions & Quality
5. Microalgae
6. Bioremediation
7. Anaerobic Digestion
8. Municipal Solid Waste
9. Environmental Economics
10. Life Cycle Assessment
11. Agricultural Engineering
12. Waste to Energy/Energy Production
13. Adsorption Processes (Part II)
14. Micropollutants/Microplastics
15. Environmental Monitoring
16. Fuels/Biofuels
17. Water Resources Management
18. Wastewater Treatment
19. EU and Greek policies on environment and circular economy and funding opportunities
20. Policies, Regulatory & Social Acceptance
21. Nanomaterials
22. Infrastructure & Building Materials
23. Water Treatment
24. Biorefineries
25. Advanced Oxidation Processes
26. Metals/Metallurgy
27. Modelling



KEYNOTE SPEAKERS



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Prof. George Tchobanoglous
Professor Emeritus,
University of California,
Davis, USA



Prof. Nicolas Kalogerakis
Professor Emeritus,
Technical University of
Crete, Greece



Prof. Cristina Trois
Professor, University of
KwaZulu-Natal, Durban,
South Africa



Prof. Ezio Ranieri
Professor, University
of Bari, Italy



Prof. Andrew Livingston
Professor, Queen
Mary University of
London, UK

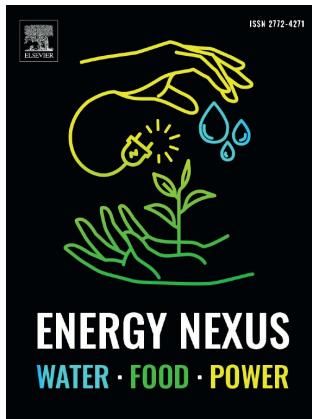
SPECIAL ISSUES



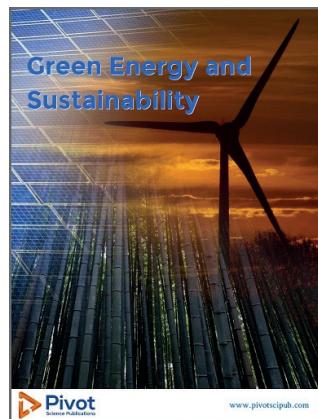
After the completion of the conference, selected abstracts/full papers will be invited to contribute to Special Issues of the three (3) following Scientific Journals:



**Journal of
Environmental
Management (Elsevier)**



**Energy Nexus
(Elsevier)**



**Green Energy and
Sustainability (Pivot)**

All abstracts/full papers will be published in the SUSTENG 2022 Conference Proceedings with ISBN number.

Important note: We would like to bring to your attention that if you intent to submit your work for one of the above Special Issues, that should not be identical with the manuscript that you are going to submit for the conference. Also, the titles of the two manuscripts must be different.

COMMITTEES

Organizing Committee

Head of Organizing Committee

Dr. Petros Gikas, Professor, Chemical Engineer, Director of the Design of Environmental Processes Laboratory, School of Chemical and Environmental Engineering, Technical University of Crete.

Members of Organizing Committee

Anthoula Manali, PhD candidate, Chemist M.Sc. Design of Environmental Processes Laboratory, School of Chemical and Environmental Engineering, Technical University of Crete.

Xanthi Evangelia Manaroli, Architect Engineer M.Sc., School of Chemical and Environmental Engineering, Technical University of Crete.

George Makaroglou, PhD candidate, Environmental Engineer, Design of Environmental Processes Laboratory, School of Chemical and Environmental Engineering, Technical University of Crete.

Konstantinos Tsamoutsoglou, PhD candidate, Environmental Engineer, Design of Environmental Processes Laboratory, School of Chemical and Environmental Engineering, Technical University of Crete.

Scientific Committee

Frank Alexis, Yachay University, Ecuador

Andreas Andreopoulos, National Technical University of Athens, Greece

Panagiota Angelis, University College, UK

George Arampatzis, Technical University of Crete, Greece

Muhammad Arsal Ashraf, Government College University Faisalabad, Pakistan

Achille Ephrem Assogbadjo, University of Abomey-Calavi, Benin

Hassan Azaizeh, Tel-Hai College, Israel

Herve Boileau, University of Savoie Mont-Blanc, France

Constantinos Chrysikopoulos, Technical University of Crete, Greece

Dimitrios Dermantas, National Technical University of Athens, Greece

Evan Diamantopoulos, Technical University of Crete, Greece

Mohamed El Shaer, Zagazig University, Egypt

Mohamed Elhag, King Abdulaziz University, Saudi Arabia

Maria Christina Fragu, University of Chile, Chile

Michael Georgiadis, Aristotle University of Thessaloniki, Greece

Apostolos Giannis, Technical University of Crete, Greece

Petros Gikas, Technical University of Crete, Greece

Angela Gorgogline, Universidad de la Republica, Uruguay

Simona Di Gregorio, University of Pisa, Italy

Isam Janajreh, Khalifa University, UAE

Dagmar Juchelkova, Technical University of Ostrava, Czech Republic

Ioannis Kalavrouziotis, Hellenic Open University, Greece

Nikolas Kalogerakis, Technical University of Crete, Greece

George Karatzas, Technical University of Crete, Greece

Alexandros Katsaounis, University of Patras, Greece

Nikolaos Kiratzis, University of Western Macedonia, Greece

Antonios Kokosis, National Technical University of Athens, Greece

Okan Tarik Komesli, Ataturk University, Turkey

Konstantinos Komnitsas, Technical University of Crete, Greece

Michael Kornaros, University of Patras, Greece

Aristeidis Koutroulis, Technical University of Crete, Greece

Manish Kumar, University of Petroleum and Energy Studies, India

Athanasis Kungolos, Aristotle University of Thessaloniki, Greece

Toni Agustiono Kurniawan, Xiamen University, China

Keisuke Kuroda, Toyama Prefectural University Japan

Andrew Livingstone, Queens Mary University, UK

Maria Loizidou, National Technical University of Athens, Greece

Gerasimos Lyberatos, National Technical University of Athens, Greece

Noredine Loeid Mahdjoub, University of Kwa Zulu-Natal, South Africa



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PROGRAMME AT A GLANCE



DAY 1 - Wednesday 31 August

Rethymno Conservatory

Registration	13:30 - 15:15
SESSION 1: Adsorption processes (Part I)	15:15 - 16:30
SESSION 2: Circular Economy/Recycling & Reuse	16:30 - 18:00
Welcome Speeches	18:00 - 18:30
KEYNOTE LECTURE: Prof. G. Tchobanoglou	18:30 - 19:15
KEYNOTE LECTURE: Prof. C. Trois	19:15 - 20:00
House of Culture (I)	
SESSION 3: Biotechnology/CO ₂ Management	15:15 - 16:45
SESSION 4: Air Pollution, Emissions & Quality	16:45 - 18:00
Rethymno Youth Center	
Welcome reception	20:00 - 22:00

DAY 2 - Thursday 1 September

Rethymno Conservatory

SESSION 5: Microalgae	09:30 - 10:15
Coffee break - Posters viewing	10:15 - 11:00
PLENARY LECTURE: Prof. P. Gikas	11:00 - 11:45
SESSION 6: Bioremediation	11:45 - 13:15
Lunch break	13:30 - 15:00
SESSION 7: Anaerobic Digestion	15:00 - 17:00
Coffee break - Posters viewing	17:00 - 17:15
PLENARY LECTURE: Prof. N. Kalogerakis	17:15 - 18:00
SESSION 8: Municipal Solid Waste	18:00 - 19:00

House of Culture (I)

SESSION 9: Environmental Economics	09:30 - 10:30
Coffee break - Posters viewing	10:30 - 11:00
SESSION 10: Life Cycle Assessment	11:45 - 13:30

PROGRAMME AT A GLANCE



Lunch break		13:30 - 15:00
SESSION 11: Agricultural Engineering		15:00 - 17:00
Coffee break - Posters viewing		17:00 - 17:15
SESSION 12: Waste to Energy/Energy Production		18:00 - 19:00
House of Culture (II)		
SESSION 13: Environmental Monitoring		09:30 - 10:15
Coffee break - Posters viewing		10:30 - 11:00
SESSION 14: Adsorption Processes (Part II)		11:45 - 13:30
Lunch break		13:30 - 15:00
SESSION 15: Micropollutants/Microplastics		15:00 - 17:00
Coffee break - Posters viewing		17:00 - 17:15
SESSION 16: Fuels/Biofuels		18:00 - 19:00
Gala dinner Beach Tavern "Chrysos Asterias", Episkopi's Beach, Rethymno		
DAY 3 - Friday 2 September		

Rethymno Conservatory

SESSION 17: Water Resources Management		09:30 - 10:30
Coffee break - Posters viewing		10:30 - 11:00
PLENARY LECTURE: Prof. A. Livingston		
SESSION 18: Wastewater Treatment		11:45 - 13:30
Lunch break		13:30 - 15:00
SESSION 19: EU and Greek policies on environment and circular economy and funding opportunities		15:00 - 16:00
SESSION 20: Polices, Regulatory & Social Acceptance		16:00 - 17:00
Coffee break - Posters viewing		17:15 - 17:30
SESSION 21: Nanomaterials		17:30 - 19:45

House of Culture (I)

SESSION 22: Infrastructure & Building Materials		09:30 - 10:15
Coffee break - Posters viewing		10:30 - 11:00
SESSION 23: Water Treatment		11:45 - 13:30

PROGRAMME AT A GLANCE



House of Culture (II)

SESSION 24: Biorefineries	09:30 - 10:15
Coffee break - Posters viewing	10:30 - 11:00
SESSION 25: Advanced Oxidation Processes	11:45 - 13:00

DAY 4 - Saturday 3 September

Rethymno

Field visit at Wastewater Treatment Plant of Rethymno-Visit to the demo facility plant of LIFE- B2E4SustainableWWTP project	09:00 - 11:00
Guided tour of the Old Town	11:30 - 13:00

Rethymno Conservatory

SESSION 26: Metals/Metallurgy	15:00 - 17:15
Coffee break - Posters viewing	17:15 - 17:30
SESSION 27: Modelling	17:30 - 19:00
PLENARY LECTURE: Prof. E. Ranieri	19:00 - 19:45
Closing ceremony	19:45 - 20:15

DAY 5 - Sunday 4 September

Rethymno

Excursion at the Historical Monastery of Arkadi, the Archeological Museum of Eleftherna and the Margarites Pottery Village (Limited availability-Reservation required)	10:00 - 17:00
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You can find the programme



HERE

with more information and details

VENUE

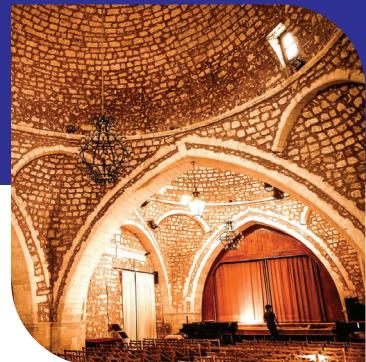


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Rethymno Conservatory, (Mosque Neratze) & House of Culture



Mikrasiaton Square, Rethymno, 74100



RETHYMNO, CRETE, GREECE



DAY 1 - Wednesday 31 August

Registration

13:30

SESSION 1: Adsorption processes (Part I)

Wednesday 31 August 15:15 - 16:30 | Rethymno Conservatory

Chair: S. A. Figueiredo, C.V. Lazaratou

Three-Dimensional Electrochemical Process Using Regranulated Cork Granules for the Removal of Trazodone and Sulfamethoxazole from Water

15:15

P. Remor, S. A. Figueiredo, V.J.P. Vilar, C. Soares, L. Correia-Sá, C. Delerue-Matos

Activated hydrochar from grape stalk for methylene blue adsorption

15:30

M. Gimenez, C. Deiana

NO₃⁻-N removal from groundwater using thermally treated palygorskite in fixed bed reactor

15:45

C. V. Lazaratou, S. D. Panagopoulos, D. V. Vayenas, D. Papoulis

Biochar based sorbents to remove vanadium ions from aqueous media

16:00

J. Bak, D. Kolodynska

Evaluation of biochar and activated carbons produced from different biomass feedstock for use as an adsorbent for pharmaceutical compounds removal in a decentralized wastewater treatment plant system

16:15

R.T. Morake, S. Septein, B.S. Martincigh, D. Lokhat

SESSION 2: Circular Economy/Recycling & Reuse

Wednesday 31 August 16:30 - 18:00 | Rethymno Conservatory

Chair: F. Ferella, A. Stefanakis

Is circular economy the key to halting biodiversity loss?	16:30
A.E. Assogbadjo, H.G.G. Avakoudjo	
 Constructed wetlands case studies for municipal and industrial wastewater management in a circular economy	 16:45
A. Stefanakis	
 Multi-purpose lignin-based benzoxazines: from hydrophobic coatings to catalyst-free vitrimers	 17:00
A. Adjaoud, L. Puchot, C. Federico, R. Das, P. Verge	
 Hydrothermal Process for Silver Leaching from Mono- and Poly-crystalline Photovoltaic Waste Panels	 17:15
E. Kastanaki, E. Lagoudakis, G. Kalogerakis, A. Giannis	
 Pre-processing and Leaching methods for extraction of REEs from permanent magnets: A scoping review	 17:30
S. Papagianni, A.M. Moschovi, K.M. Sakkas, M. Chalaris, I. Yakoumis	
 Technical assessment of a plant for recovery of metals from HDS catalysts	 17:45
N.M. Ippolito, V. Innocenzi, I. D'Adamo, F. Ferella	
 Welcome Speeches	 18:00
 KEYNOTE LECTURES	
 Wednesday 31 August 18:30 - 20:00 Rethymno Conservatory	
 Chair: P. Gikas, G. Kremlis	
 The state of water reuse	 18:30
Prof. George Tchobanoglous, University of California, Davis, USA	
 Looking at future ecosystems: investigating waste and climate change	 19:15
Prof. Cristina Trois, University of kwaZulu-Natal, Durban, South Africa	

SESSION 3: Biotechnology/CO₂ Management

Wednesday 31 August 15:15 - 16:45 | House of Culture

Chair: M. Geetha, A.Vlysidis

Co-culture and continuous two-stage bioreactor system for the fermentation of syngas by *B. methylotrophicum* and *C. tyrobutyricum* 15:15
M. Pacheco, C. Silva, P. Moura

Electro-conductive anaerobic membrane bioreactors for biofouling mitigation 15:30
S. Qi, A.D. Grossman, A. Ronen, R. Bernstein

Effect of oxygen transfer coefficient on microbial production of lipids and carotenoids using renewable waste feedstock: batch and fed-batch mode 15:45
M.A. Villegas-Mendez, J. Montanez, J.C. Contreras-Esquivel, I. Salmeron, A. Koutinas, L. Morales-Oyervides

Recent advances in CO₂ to bio-oil biorefinery 16:00
A.G. Capodaglio

Green materials-composites for CO₂ capture and conversion- an emerging trend in sustainable CO₂ management 16:15
M. Geetha, K.K. Sadasivuni

Catalytic hydrogenation of CO₂ using CuO impregnated amine-modified silica support 16:30
H. Onthath, M.H. Sleim, M. Geetha, K.K. Sadasivuni, A.M. Abdullah, B. Kumar

SESSION 4: Air Pollution, Emissions & Quality

Wednesday 31 August 16:45 - 18:00 | House of Culture

Chair: M.M. Karim, G. Makaroglou

Study of immobilized biomass reactors for sulfidogenic activity characterization and efficiency improvement 16:45
R. Castro, G. Gabriel, X. Gamisans, X. Guimera

Analysis of PM2.5 and PM10 concentrations trends in selected Greek urban cities before and after the national lockdowns caused by the COVID-19 pandemic 17:00
P. Begou

Cumulative Impact Assessments of Power Generations in Southeastern Bangladesh 17:15
M.M. Karim, N. Bindra, A. Masud

Is there any correlation between the diabetes mellitus and atmospheric pollutants? 17:30
M. Koliba, D. Zmijkova, H. Raclavska

Reducing methane emissions at gas transmission networks. Best practices literature review and case studies 17:45
A. Tsochatzidi, N.A. Tsochatzidis

Welcome reception 20:00

DAY 2 - Thursday 1 September

SESSION 5: Microalgae

Thursday 1 September 09:30 - 10:15 | Rethymno Conservatory

Chair: G. Makaroglou, G. Papapolymerou

Effect of carbon concentration on the fatty acid distribution and basic FAME properties of the bio-oil of Chlorella sorokiniana 09:30
G. Papapolymerou, A. Mpesios, A. Kokkalis, D. Kasiteropoulou, M.N. Metsoviti, A. Papadopoulou

Removal of nutrients from saline water by algae 09:45
S.E. Biliani, I.D. Manariotis

Lab and photo-bioreactor scale optimization of *Stichococcus* sp. strain for CO₂ sequestration and bio-products production 10:00
G. Makaroglou, P. Gikas

PLENARY LECTURE

Thursday 1 September 11:00 - 11:45 | Rethymno Conservatory

Chair: T. Tsoutsos, C. Trois

Energy Positive wastewater treatment plants: The LIFE-B2E4Sustainable WWTP program

11:00

Prof. P. Gikas, Technical University of Crete, Greece

SESSION 6: Bioremediation

Thursday 1 September 11:45 - 13:15 | Rethymno Conservatory

Chair: P. Melidis, E. Mathioudaki

Separation of the α -alumina layer from a spent Three-Way-Catalyst through *A. thiooxidans* as a pre-treatment to recover PGMs

11:45

M. Compagnone, J.J. Gonzalez-Cortes, M.P. Yeste, D. Cantero, M. Ramirez

Wastewater treatment coupled with *Synechococcus elongatus* PCC 7942 cultivation

12:00

G. Samiotis, K. Stamatakis, I. Ristanis, L. Kemmou, E. Amanatidou

Comparative Degradation of *Vitis Vinifera* “Assyrtiko” grape pomace by two different bacteria: *Pseudomonas* sp. strain phDV1 and *Chlamydomonas reinhardtii*

12:15

E. Mathioudaki, M. Belenioti, D. Ghanotakis, G. Tsiotis, N. Chaniotakis

Biodegradation of glyphosate: a Bioinformatics approach

12:30

V.L. Koumandou, M. Giannakara

Hydrocarburoclastic fungi and bacteria to improve bioavailability and degradability of petroleum hydrocarbons in a historically contaminated soil

12:45

S. Di Gregorio , I. Chicca, S. Becarelli

Aeration control using on-line calculation of oxygen uptake rate

13:00

K. Azis, S. Ntougias, P. Melidis

SESSION 7: Anaerobic Digestion

Thursday 1 September 15:00 - 17:00 | Rethymno Conservatory

Chair: K. Tsigkou, S. Vakalis

The role of hydrochar on the production of biogas and volatile fatty acids during anaerobic digestion of cheese whey wastewater 15:00

D. Liakos, G. Altiparmaki, A. Kalampokidis, S. Vakalis

Influence of nitrate source and hydraulic residence time of the anoxic desulfurization in the bacterial consortia and the methane content of desulfurized landfill biogas 15:15

J.J. Gonzalez-Cortes, G. Quijano, M. Ramirez, D. Cantero

Long-term operation of a pilot bioscrubber for landfill biogas desulfurization 15:30

S. Torres-Herrera, J. Palomares-Cortes, J.J. Gonzalez-Cortes, X. Gamisans, D. Cantero, M. Ramirez

Anaerobic Co-digestion of sewage sludge and acidic cheese whey 15:45

F. Gkoumas, Z. Gravanis, C. Noutsopoulos, D. Mamais, S. Malamis

The microbiology of the two stage Dark Fermentation - Metanogenic reactor, optimization of methane production 16:00

S. Becarelli, E. Rossi, R. Iannelli, S. Di Gregorio, I. Pecorini

Development of a two-stage anaerobic digestion system for treating fruit and vegetable wastes from open markets 16:15

A. Kalogiannis, I. Vasiliadou, K. Stamatelatou

Transition from lab to pilot scale anaerobic digestion systems: effect of the substrate composition on the process stability and repeatability 16:30

K. Tsigkou, D. Zagklis, P. Tsafrikidou, C.a Zafeiri, M. Kornaros

UASB performance and microbial community during sulfate enriched hydrolyzed starch treatment 16:45

D. Theodosi Palimeri, A.G. Vlyssides, A.A. Vlysidis

PLENARY LECTURE

Thursday 1 September 17:15 - 18:00 | Rethymno Conservatory

Chair: P. Gikas, D. Kolokotsa

Plastics and microplastics pollution: Are nature-based solutions possible?

17:15

Prof. Nicolas Kalogerakis, Technical University of Crete,
Greece

SESSION 8: Municipal Solid Waste

Thursday 1 September 18:00 - 19:00 | Rethymno Conservatory

Chair: D. Cantero, K. Poulios

Spatial and temporal variation of VOCs in MSW landfills

18:00

A. Lagoudi, K. Poulios, G. Anagnostopoulos, K. Rigas, S. Chandrinou

An investigation on the methane gas production and emission potential from municipal solid waste dumpsites in India

18:15

N. Gupta, N. B.P., R. Arora, M. Karimpour

Source-level composting of biodegradables for envisaging sustainable management of municipal solid waste in urban educational institutes – a model for developing countries

18:30

M. Shafiq

Long-term operation of a pilot sequencing batch bioreactor for the nitrification of landfill leachates

18:45

S. Torres-Herrera, J. Palomares-Cortes, J.J. Gonzalez-Cortes, X. Gamisans, D. Cantero, M. Ramirez

SESSION 9: Environmental Economics

Thursday 1 September 09:30 - 10:30 | House of Culture

Chair: A. Giannis, A. Pournara

Cost profile of adsorption and photocatalysis process	09:30
D.A. Gkika, A. Mitropoulos, G.Z. Kyzas	

Systematic and Cost Overview of Freeze Desalination utilizing Thermoacoustic Technology	09:45
U. Ali, H. Zhang, I. Janajreh	

Development of the IES protocol for Sustainable Blue Economy in the coastal zone	10:00
A. Pournara, F. Sakellariadou	

Life cycle assessment of LIFE B2E4sustainable-WWTP project: the baseline case	10:15
A. Lara, D. Fernandez, J. Paredes, G. Castejon	

Coffee break - Posters viewing	10:30
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SESSION 10: Life Cycle Assessment

Thursday 1 September 11:45 - 13:30 | House of Culture

Chair: G. Barjoveanu, E. Ranieri

Environmental Considerations Allied with the Application and Aerobic Operation of the Fluidized Bed Biofilm Reactor (FBR)	11:45
W.L. Liew, M.A. Kassim, K. Muda, S.K. Loh, M.M. Hanafiah, N.S. Zaidi	

Life cycle assessment as support tool for development of novel materials used in environmental applications	12:00
G. Barjoveanu, C. Teodosiu, I. Morosanu, D. Fighir, F. Bucatariu, M. Mihai	

Life cycle assessment of chicken manure treatment options	12:15
G. Barjoveanu, D. Gavrilescu, P. Apopei, C. Teodosiu	

Environmental assessment of the integration of gasification into the waste management system in Reunion Island	12:30
J.C.I. Rabetanetiarimana, M.H. Radanielina, H.T. Rakotondramiarana, D. Morau	

Environmental Assessment of Energy Supply Model Replacement in a Dyeing-Finishing Plant 12:45
M.F. Shih, J.C.T. Lin

Biodesulfurization biorefinery using Gordonia alkanivorans strain 1B: Life cycle inventory of the integrated process 13:00
T.P. Silva, C. Silva, J. Tavares, S.M. Paixao, L. Alves

Is Hemp a Sustainable Energy Resource? 13:15
E. Teirumnieka, N. Patel, K. Laktuka, I. Veidenbergs, D. Blumberga

Lunch break 13:30

SESSION 11: Agricultural Engineering

Thursday 1 September 15:00 - 17:00 | House of Culture

Chair: J. Dach, M. Basitere

Changes of carbon and nitrogen content in soils since 1993 to 2021 in the Krotoszyn Forest District, Poland 15:00
M. Konatowska, A. Mlynarczyk, P. Rutkowski, Z. Krysztofiak, A.K. Bernat

The combination of lean manufacturing methodology and innovation in the beverage business 15:15
M.G. Nomikou, P. Konstantinou

Methane production from cheese whey over longer period may be interrupted by microelements restrictions 15:30
B. Stres, A. Hatzikioseyan, P. Kousi, E. Remoundaki, L. Deutsch, K.V. Mikus, S. Kolbl-Repinc

The effect of biogas plants on the reduction of GHG emissions on the animal production farm profile 15:45
J. Dach, W. Bojarski, J. Mazurkiewicz, A. Kowalczyk-Jusko, P. Pochwatka, A. Mazur

Statistical Comparison of the performance of the Down-flow Expanded Granular Bed Reactor and Expanded Granular Sludge Bed Reactor train for the treatment of Poultry slaughterhouse wastewater
P.A. Dyosile, **M. Basitere**, M. Njoya, S.K.O. Ntwampe

16:00

Comparative effects of agricultural biowaste recycling practices and inorganic fertilization on basil (*Ocimum basilicum L.*) growth and soil fertility: Modeling plant growth

16:15

D. Pinakoulas, V. Sotiriou, S. Grivopoulos, **M. Drosos**, M. Papadaki, G. Mihalakakou, E. Giannakopoulos

Advances in avocado oil extraction replacing conventional solvent extractions with Ultrasound technique as a green technology

16:30

S.T. Mgoma, **M. Basitere**, V. Mshayisa

Forest residues valorization towards wood protecting agent applications

16:45

L. Sillero, A. Morales, R. Fernandez-Marin, F. Hernandez-Ramos, I. Davila, X. Erdocia, J. Labidi

Coffee break - Posters viewing

17:00

SESSION 12: Waste to Energy/Energy Production

Thursday 1 September 18:00 - 19:00 | House of Culture

Chair: A. Manali, S. Vakalis

Hydrothermal carbonization as a pathway for co-gasification of municipal sludge and agricultural residues

18:00

A. Artikopoulos, G. Altiparmaki, D. Liakos, **S. Vakalis**

Green pyrolysis of wine waste for hybrid supercapacitors

18:15

A. Mamaní, **M. Gimenez**, D. Barreda, S. Fabiana, R. Santamaría

The potential of the use of reclaimed areas of transition regions for the production and accumulation of electricity as a potential to replace natural gas from risk areas

18:30

L. Stepanec, M. Kantor, P. Gikas, **D. Juchelkova**

SESSION 13: Environmental Monitoring

Thursday 1 September 09:30 - 10:15 | House of Culture (II)

Chair: J. Hubeny, I. Kagalou

Environmental monitoring of the Balos lagoon in Western Crete for sustainable tourism development

09:30

M. Lilli, G. Skiniti, N. Nikolaoidis, T. Tsoutsos

Do the pathogens and antibiotic resistance genes can “ESKAPEE” from the WWTP?

09:45

J. Hubeny, M. Buta-Hubeny, W. Zielinski, D. Rolbiecki, S. Ciesielski, E. Korzeniewska, M. Harnisz

Management implications in a peri-urban river under multiple stressors

10:00

C. Ntislidou, V. Papaevangelou, D. Latinopoulos, S. Ntougias, P. Melidis, C. Akratos, I. Kagalou

Coffee break - Posters viewing

10:30

SESSION 14: Adsorption Processes (Part II)

Thursday 1 September 11:45 - 13:30 | House of Culture (II)

Chair: C. Mangwandi, M.S. Fountoulakis

Development and evaluation of magnetic tea waste based adsorbent materials for removal of cadmium from wastewater

11:45

M. Ervine, O. Jaiyeola, C. Mangwandi

Converting unused concentrated metals of plating waste into novel layered double hydroxide (LDH) adsorbent for pyrophosphate removal

12:00

T.A. Kurniawan

Removal of Hexavalent chromium from aqueous solution using Potato Peel waste-based adsorbent O. Jaiyeola, C. Mangwandi	12:15
Highly efficient removal of cadmium from waste water using eco-friendly and cost-effective aluminophosphate as adsorbents O. Jaiyeola, A. Hamza, C. Mangwandi	12:30
Olive Mill Wastewater color treatment by fibrous clay mineral G. Panagopoulos, E. Gianni, V. Bekiari, K. Katsanou	12:45
Comparison of rare earth elements adsorption by sodium alginate-based adsorbents D. Fila, Z. Hubicki, D. Kolodynska	13:00
Effect of conductive material addition and external voltage application on the anaerobic digestion of dairy wastewater M.S. Fountoulakis, Z. Dedova, S. Lemaigre, M. Calusinska, J. Roussel	13:15
Lunch break	13:30

SESSION 15: Micropollutants/Microplastics

Thursday 1 September 15:00 - 17:00 | House of Culture (II)

Chair: E. Barka, E. Gianni

Influence of grain size distribution of compost from urban greenery on the distribution of microplastics and their leachability H. Raclavska, J. Ruzickova, M. Safar, D. Juchelkova, B. Svedova, M. Kucbel, P. Kantor, H. Brtkova, K. Raclavsky	15:00
Water quality analysis using physicochemical parameters and estimation of pesticides in water from various sources of Tirupati, Andhra Pradesh, India S. Konda, M. Malleswari, B. Nikitha	15:15
Photodegradation of low -and high-density polyethylene, polypropylene, polyvinyl chloride, polystyrene and nylon: evaluation by IR spectroscopy, Raman spectroscopy, DSC and SEM M.P. Yeste, M.A. Cauqui, S. Bergaliyeva, M. Sendra	15:30

One step synthesis of g-C3N4 supported WS2 with enhanced photocatalytic performance

15:45

G. Mario Vino Lincy, M.M. Ghangrekar, S. Chowdhury

Electrosynthesis of hydrogen peroxide with carbon based materials for the degradation of emerging contaminants

16:00

R. Dhawle, A. Ioannidi, Z. Frontistis, D. Mantzavinos

Novel 3D MoS2@graphene aerogel for enhanced photocatalytic degradation of tetracycline

16:15

R. Das, B.K. Dubey, S. Chowdhury

Assessing the performance of a column system using zero valent iron nanoparticles for the treatment of diclofenac and bisphenol-A from wastewater

16:30

E. Barka, C. Noutsopoulos, A. Galani, I. Panagou, M. Kalli, E. Koumaki, D. Mamais, S. Malamis, C. Mystrioti, N. Papassiopi

Theoretical investigation of halloysite as potential sorbent for pharmaceutical wastewaters

16:45

E. Gianni, E. Scholtzova

Coffee break - Posters viewing

17:00

SESSION 16: Fuels/Biofuels

Thursday 1 September 18:00 - 19:00 | House of Culture (II)

Chair: G. Skiniti, N.A. Tsochatzidis

Optimization of a biphasic biodesulfurization system

18:00

T.P. Silva, S.M. Paixao, J.C. Roseiro, L. Alves

Valorisation of crude glycerol in the production of liquefied lignin bio-polymers

18:15

F. Hernandez-Ramos, M. Gonzalez Alriols, J. Labidi, X. Erdocia

Kinetic Study of Transesterification of Waste Cooking Oil Under Ultrasound

18:30

S. Savvopoulos, H. Hatzikirou, I. Janajreh

Production of green hydrogen on Non-Interconnected Islands (NIIs) and combination with LNG:a modeling analysis of Lesvos (Greece)
N. Perivolari, A. Dimou, S. Vakalis

18:45

Gala dinner - Beach Tavern "Chrysos Asterias", Episkopi's Beach, Rethymno

20:00

DAY 3 - Friday 2 September

SESSION 17: Water Resources Management

Friday 2 September 09:30 - 10:30 | Rethymno Conservatory

Chair: S.Y. Chung, E. Karkou

Critical insights to drive sustainable water management in process industries

09:30

E. Karkou, N. Savvakis, G. Arampatzis

Assessment of groundwater contamination vulnerability using machine learning algorithms

09:45

K.H. Park, S.Y. Chung, H.E. Elzain

Satellite-Derived Bathymetry: Machine Learning Approach in the study of water supply reservoirs

10:00

L. Coelho de Andrade, A. Amaral e Silva, I. Oliveira Ferreira, F.C. Mesquita Santos, V. Gibrim Teixeira, M.L. Calijuri

Wastewater treatment at WWTP of Rethymno: the LIFE B2E4sustainable-WWTP project

10:15

D. Amanatidis, M. Vryllakis, V. Georgiadou, G. Papadakis, V. Theodorakis

Coffee break - Posters viewing

10:30

PLENARY LECTURE

Friday 2 September 11:00 - 11:45 | Rethymno Conservatory

Chair: P. Gikas, P. Melidis

SESSION 18: Wastewater Treatment

Friday 2 September 11:45 - 13:30 | Rethymno Conservatory

Chair: D. Jaisi, K. Tsamoutsoglou

Mechanism of polyphosphate formation and degradation in wastewater treatment plants

11:45

Y. Bai, L. Stout, **D. Jaisi**

Advancement in waste-water treatment technologies

12:00

F. Dziike

Development of a greenhouse and screw conveyor solar driers for the treatment of faecal sludge from on-site sanitation facilities

12:15

S. Septein, P. Naidoo, A. Ramlucken, A. Ganapathie, Y. Pather, A. Singh, J. Pocock, F. Inambao, C. McGregor

Energy optimization in WWTP of Larisa city, Greece

12:30

V. Angelou, E. Nikolaidou, P. Christoforidou, A. Hletsis, A. Liakata, A. Papakonstantinou, P. Samaras

Primary filtration systems as a viable solution to overloaded municipal wastewater treatment plants

12:45

K. Tsamoutsoglou, P. Gikas, N. Karamanes, M. Mavri, K. Christofinas

Advanced Primary Micro-Screening using "Micro-Band-Filter":

13:00

Lessons learned from LIFE B2E4sustainable-WWTP project

G. Messaritakis, I. Panagopoulos, T. Dimoulas, M. Paladinou, K. Stamatakis, I. Velissarakos, A. Koutsoukos

Desalination of Renewable Brackish Water Sources in Coastal Areas |

13:15

The Case of Almyros in Heraklion Crete

A. Yfantis

Lunch break

13:30

SESSION 19: EU and Greek policies on environment and circular economy and funding opportunities

Friday 2 September 15:00 - 16:00 | Rethymno Conservatory

Chair: P. Gikas, T. Tsoutsos

The policy and legal framework of circular economy G. Kremlis , Advisor to the Greek Prime Minister on energy, climate, environment and circular economy issues	15:00
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Overview of LIFE and CEQL S. Mias , Project Manager at CINEA - European Climate, Infrastructure and Environment Executive Agency (Unit D2 - LIFE Environment)	15:20
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The role of Green Fund in supporting environmental initiatives in Greece D. Banousis , Environmental expert, Green Fund. Researcher, Panteion University	15:40
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SESSION 20: Polices, Regulatory & Social Acceptance

Friday 2 September 16:00 - 17:00 | Rethymno Conservatory

Chair: K. Laktuka, A. Stefanakis

How Productive is Waste Management? Adoption & Impact of Waste Management practices in Indian Informal MSMEs L. Posti, V. Bhamoriya	16:00
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Towards Sustainable Aviation: Civil Aviation Policies in Turkey in Global Context N.U. Temel, Y.E. Topal, B.H. Gursoy Haksevenler	16:15
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Promoting sustainability in fisheries and aquaculture through biodiplomacy K. Laktuka, P. Poca, D. Blumberga	16:30
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**Social Perspective of Separate Waste Collection of Municipal Waste,
A Case Study for a Municipality in Istanbul, Turkey**

16:45

B.H. Gursoy Haksevenler, A. Akpinar, B. Takta, I. Celik

Coffee break - Posters viewing

17:15

SESSION 21: Nanomaterials

Friday 2 September 17:30 - 19:45 | Rethymno Conservatory

Chair: G. Arampatzis, F. Baraka

**Production and Application of High-Performance Industrial Materials
based on Nanocellulose**

17:30

G. Penloglou, O. Kotrotsiou, V. Bakola, A. Pavlou, M. Sarafidou, D. Ladakas, E. Tsouko, A. Koutinas, K.T. Papapetros, K.S. Andrikopoulos, G.A. Voyatzis, D. Bartzialis, N.G. Danalatos, K.D. Giannoulis, E. Karagiannidis, M. Iakovlev, E. Deze, M. Papaioannou, S. Sideri, C. Kiparissides

**Investigating the effects of initial number concentration on the transport
of aggregating nanoparticles**

17:45

V.E. Katzourakis, C.V. Chrysikopoulos

**Production of cellulose nanofiber by using deep eutectic solvent and
ultrasonic treatment**

18:00

Y.Y. Chen, F.B. Mkhontfo, K.L. Chang

**Microwave-Assisted production of Cellulose nanofibers with aromatic
amine**

18:15

F. Baraka, J. Labidi

**Degradation of indigo carmine dye using magnetic ferrite nanoparticles as a
heterogeneous Fenton-like catalyst: Optimization by Response surface
methodology**

18:30

A. Soufi, H. Hajjaoui, M. Khnifira, M. Abdennouri, N. Barka

Solar Cell Elements Based on Graphene-Porphyrin Nanocomposites 18:45
G. Gyulkhandanyan, P. Gikas, **G. Shmavonyan**

Metal Nanoparticles: eco-compatible fungicide alternatives to combat resistance 19:00
A. Malandrakis, N. Kavroulakis, C. Chrysikopoulos

Synthesis and Study of starch/CeO₂ Nanoparticle Composite Material for Removal of Hexavalent Chromium from Synthetic Wastewater Solutions 19:15
O. Jaiyeola, C. Mangwandi

Nutmeg seed shell-based silver nanoparticle/PVA composite for the synthesis of antimicrobial food packaging films 19:30
T. Thomas, A.K. Thalla

SESSION 22: Infrastructure & Building Materials

Friday 2 September 09:30 - 10:15 | House of Culture

Chair: D. Diamantidis, K. Stefanopoulos

Risk informed decision criteria for the sustainable design of renewable energy infrastructures 09:30
D. Diamantidis

Production of Phase Change Material from Waste Low Density Polyethylene for Thermal Energy Storage Applications 09:45
H. Akgun, A. Ozkan, Z. Gunkaya, M. Banar

Effect on the thermal sensation of outdoor users due to the age of the granite blocks used in the coating of public areas 10:00
K. Stefanopoulos, N. Lianos, D. Polychronopoulos, S. Zoras

Coffee break - Posters viewing 10:30

SESSION 23: Water Treatment

Friday 2 September 11:45 - 13:00 | House of Culture

Chair: D. Banousis, P. Seridou

Selection of method water cleaning method and qualification of demanganization temperature filter fire troubleshooting in central provision. 11:45

Kedronas of DEYA Edessa

A. Mpinoz, I. Chatzoglou

Improving Groundwater Quality Using Hybrid Constructed Wetland in Coastal Communities in Sub-Saharan Africa 12:00

R. N. Okparanma, V. O. Ahiakwo

Methylparaben as a concerning contaminant for the proliferation of Stenotrophomonas maltophilia 12:15

A.R. Pereira, I. Gomes, M. Simoes

Ballast water disinfection by ozone micro- and nanobubbles 12:30

P. Seridou, E. Kotzia, K. Katris, N. Kalogerakis

The potential of OXONE as an alternative disinfectant to control drinking water biofilms 12:45

I.M. Oliveira, L.C. Simoes, M. Simoes

Renewable energy desalination for island communities: 13:00

Status and prospects in Greece

G. Kyriakarakos, G. Papadakis, C.A. Karavitis

SESSION 24: Biorefineries

Friday 2 September 09:30 - 10:15 | House of Culture (II)

Chair: A. Coz, D. Kasiteropoulou

Importance of the use of Multi-Criteria Analysis tools to make decisions in biorefinery 09:30

A. Coz, C. Rojas, C. Rueda, R. Leonardi, J. Khawam, R.N. Comelli, T. Llano

Agro-food waste re-valorization through solid-state fermentation for hydrolytic enzymes production 09:45

J.D. Sosa-Martinez, J. Montanez, J.C. Contreras, S. Gadi, L. Morales

Recycling of solid waste from the olive oil industry for various added-value products

10:00

H.N. Abu Tayeh, Y. Gerchman, J. Asscher, H. Azaizeh

Coffee break - Posters viewing

10:30

SESSION 25: Advanced Oxidation Processes

Friday 2 September 11:45 - 13:00 | House of Culture (II)

Chair: H. Azaizeh, G. Papapolymerou

Significantly enhanced UV-A driven oxidative destruction of an organic contaminant of emerging concern from aqueous medium using nanosized catalysts

11:45

L. Favier, A.M. Sescu, D. Lutic, M. Harja

Photoprotection of Cationic Porphyrins and Their Non-Covalent Complexes for Effective Photodynamic Therapy of Tumors

12:00

L. Mkrtchyan, A. Zakyan, T. Seferyan, P. Gikas, G. Shmavonyan, G. Gyulkhandanyan

Biochar coupled with advanced oxidation process for a novel treatment of micropollutants in effluents

12:15

H. Azaizeh, G. Peer, S. Azerrad

Advanced oxidation process UV-H₂O₂ combined with biological treatment for the removal and detoxification of phenol

12:30

M. Haj-Zaroubi, N. Bar-Niv, H. Azaizeh, E. Kurzbaum

TiO₂-assisted solar light photodegradation as a solution of the problem of spreading b-lactam resistance determinants in the environment

12:45

M. Buta-Hubeny, E. Felis, W. Zielinski, J. Hubeny, M. Harnisz, S. Bajkacz, E. Korzeniewska

DAY 4 - Saturday 3 September

SESSION 26: Metals/Metallurgy

Saturday 3 September 15:00 - 17:15 | Rethymno Conservatory

Chair: Wei Guo, A. Manali

Investigation of the processes occurring in water of acid mine drainage during their exposure	15:00
S. Hayrapetyan, M. Chobanya, V. Hovhannisyan, A. Kirakosyan, A. Sukiasyan, P. Gikas	
Novel economical method for recovering valuable metals from used Li-ion batteries	15:15
J. Parra Degante, S. Rojas Escobar, L.P. Jaramillo Quintero, M.A. Munive Rojas, J.A. Guevara Garcia	
Beneficiation of Coal Ash for Rare Earth Elements Enrichment	15:30
A. Tsachouridis, N. Kiratzis	
Recovery of Pd from Pd/Al₂O₃ catalysts through a thiosulfate-copper-ammonia complex	15:45
M. Compagnone, J.J. Gonzalez-Cortes, M.P. Yeste, D. Cantero, M. Ramirez	
Crocin as an eco-friendly corrosion inhibitor for aluminum alloys in NaCl solution	16:00
P. Pantazopoulou, S. Theohari, S. Kalogeropoulou	
Anodic electrodeposition of continuous metal-organic framework films with robust adhesion by pre-anchored strategy	16:15
W. Guo, X. Zhang, J. Fransaer	
Hydrometallurgical recovery of Ag and Au from printed circuit boards coupled with a novel bioreactor for the treatment of wastewater: a zero-discharge scheme	16:30
D. Vlasopoulos, P. Mendrinou, P. Oustadakis, A. Karampelas, P. Kousi, A. Stergiou, S. Karamoutsos, A. Hatzikioseyan, P.E. Tsakiridis, S. Agatzini-Leonardou, G.N. Anastasakis, E. Remoundaki	
Bayesian statistics study of a sustainable dissolution of cobalt bearing minerals from Cu-Co ores	16:45
B. Mbuya, J. Meta Mvita, A.F. Mulaba-Bafubiandi	

Investigation of the processes occurring in water of acid mine drainage during their exposure

17:00

S. Hayrapetyan, M., Chobanyan, V. Hovhannisyan, A. Kirakosyan, **A. Sukiasyan**, P. Gikas

Coffee break - Posters viewing

17:15

SESSION 27: Modelling

Saturday 3 September 17:30 - 19:00 | Rethymno Conservatory

Chair: P. Pochwatka, T. Theodosiadis-Thomaidis

A Classification Model for Estimating Hurricane Flood Damage in Satellite Images

17:30

M. Gavrilescu, D. Gavrilescu

Development of computational tools for criticality analysis of process systems, utilizing Industrial IoTs

17:45

T. Theodosiadis-Thomaidis, G. Panagopoulou, S. Pistikopoulos

Modeling metal bioprecipitation in a packed-bed denitrifying bioreactor

18:00

A. Hatzikioseyan, **P. Mendrinou**, E. Datsika, E. Remoundaki

Reactive Transport Model on Biogeochemical Dynamics of Colloid Associated Heavy Metal Transport

18:15

S.S. Sengor, K. Unlu

The use of sensitivity analysis in ANN to determine the significance of the parameters of the anaerobic digestion process

18:30

P. Pochwatka, A. Kowalczyk-Jusko, A. Mazur, M. Nowak, J. Dach

An integrated PSO – DMC framework for the identification and control of wastewater treatment plants

18:45

I. Kalogeropoulos, **T. Protoulis**, I. Kordatos, A. Kapnopoulos, P.L. Zervas, H. Sarimveis, A. Alexandridis

PLENARY LECTURE

Saturday 3 September 19:00 - 19:45 | Rethymno Conservatory

Chair: P. Gikas, G. Kremlis

Phytoremediation of metal contaminated soil and GHGs control 19:00
Prof. Ezio Ranieri, University of Bari, Italy

Closing Ceremony 19:45

Field visit at Wastewater Treatment Plant of Rethymno - Visit to the demo facility plant of LIFE- B2E4SustainableWWTP project 09:00

Guided tour of the Old Town 11:30

DAY 5 - Sunday 4 September

Excursion at the Historical Monastery of Arkadi, the Archeological Museum of Eleftherna and the Margarites Pottery Village (Limited availability- Reservation required) 10:00

Posters

Production of Polyhydroxyalkanoates (PHA) by *Pseudomonas* sp. strain phDV1 using different carbon waste sources

E. Mathioudaki, **D.E. Geladas**, A. Drakonaki, E. Konsolaki, N. Vitsaxakis, N. Chaniotakis, G. Tsiotis

Food-waste management in the food service sector

M. Barbarosou, L. Evrenoglou, O. Cavoura, G. Zervas, **I. Damikouka**

Removal of anthraquinone dye by hybrid modified activated carbons

A.K. Tolkou, **G.Z. Kyzas**

Autotrophic and heterotrophic arsenite oxidation by a river water microcosm

S. Won, J. Bae, S. Lee, H. Jin, Y. Kim, H.Y. Kang

A recycling Photovoltaic panel process by complexing reagents

P. Koulouridakis, N. Bilalis, N. Kaliithrakas-Kontos

LCA studies within CREIAMO project: eco-innovation approach and environmental impact assessment

E. De Marco, F. Hernan Gomez Tovar, L. Mastella, A. Franzetti, M. Vaccari, S. Sbaaffoni

Employment of poultry and turkey manure as fuel for small/medium scale boilers

C. Di Stasi, Y. Torreiro, J. Rico, R. Perez, D. Patino, A. Rodriguez-Abalde

Cultivation of marine microalgae - Production of biomass and high value added products

V. Patrinou, A. Daskalaki, C.N. Economou, D. Bokas, D.V. Vayenas, G. Aggelis, A.G. Tekerlekopoulou

Use of biosolids to enhance tomato growth and assessment of metal leaching after land application

I. Giannakis, C. Emmanouil, M. Mitrakas, A. Lagopodi, **A. Kungolos**

Biodiesel production, properties and sustainability from the biomass of *Chlorella sorokiniana* grown heterotrophically with glycerol and anaerobic digestate

D. Kasiteropoulou, G. Papapolymerou, A. Kokkalis, M. Metsoviti, X. Spiliotis, A. Mpessios

The root microbiome of organically grown vegetable crops

N. Paranychianakis, R. Mourgela , M. Frantzeskou , N. Kavroulakis , P. Moschou

Use of green magnetic nanoparticles (Cys-Fe₃O₄) and ozone for the degradation/elimination of methylene blue in textile wastewater

Y.L. Ramirez Salazar, L.N. Valero-Melo, **W. Marimon-Bolivar**, L.P. Tejeda, L. Pulgarin

Applying solar distillation for wine lees dewatering and phenols recovery

P.Mastoras, S.Vakalis, M.S. Fountoulakis, **A. Xenaki**, D. Haralambopoulos, A.S. Stasinakis

Heterotrophic growth of Chlorella sorokiniana with glycerol and anaerobic digestate: carbon uptake rate and phenolic content

D. Kasiteropoulou, G. Papapolymerou, D. Ladas, A. Mpesios, M. Metsoviti

Influence of rejuvenating agents addition on the properties of zeolite-foamed asphalt

A. Woszuk, M. Wrobel, W. Franus

Potential for bioenergy production from swine farms in Cyprus

A. Poullou, P. Gikas

Challenges for public acceptance of water reuse

E. Gika, E.A. Fakorelli, V. Bili and P. Gikas

A novel microbial biosurfactant/bioemulsifier: Production and characterization

T.P. Silva, S.M. Paixao, J.Tavares, L. Alves

Mixotrophic cultivation of Microchloropsis gaditana

G. Papapolymerou, N. Katsoulas, I. Karapanagiotidis, M. Metsoviti

Handling and Waste Management of Covid-19 Self and Rapid Tests survey: a data analysis

E. Panourgia, T. Daras, A. Giannis, E. Maria

Study of the potential accumulation of pesticides in microplastics

S. Martinho, V. Cruz Fernandes, S.A. Figueiredo, C. Delerue-Matos

A fast and effective analytical method to quantify the emulsifying activity: design and validation

L. Alves, J. Tavares, T.P. Silva, S.M. Paixao

Thermodynamic characterization of Liquid-Vapor Equilibria of Propionic Acid-Water and

Acetic Acid-water at atmospheric pressure

L. Mazzeo, V. Piemonte

Preliminary performance evaluation for chicken manure treatment and valorization options

D. Gavilescu, G. Barjoveanu, P. Apopei, C. Teodosiu, A. Talpalaru

Effect of granular activated carbon (GAC) addition in a pilot-scale anaerobic digester treating

sheep manure and agro-industrial wastewater

D. Kalantzis, I. Daskaloudis, D.F. Lekkas, T. Lacoere, J. De Vrieze, M.S. Fountoulakis

ETV as tool dedicated to acceleration of market uptake and diffusion of green innovations.

The LIFEproETV project

E. De Marco, S. Sbaaffoni, R. Preka, E. Mancuso, I. Ratman Klosinska, T. Beltrani

Smart Water Management

E. Vgenopoulou, L. Evrenoglou, O. Cavoura, G. Zervas, I. Damikouka

Performance of a UASB reactor treating hydrolyzed starch at various conditions

D. Theodosi Palimeri, A.G. Vlyssides, A.A. Vlysidis

Enhancement of siloxanes biofiltration from waste air by toluene addition
J.J. Gonzalez-Cortes, P.A. Lamprea-Pineda, M. Ramirez, K. Demeestere, C. Walgraeve

Evaluation of the Suitability of Agricultural- and Industrial-based Biochars for Soil Amendment
D. Vamvuka, **P. Karagiannaki**

Effect of salinity and nitrogen to phosphorus ratio on the growth of the marine cyanobacterium Geitlerinema sp
S. Patsialou, C.N. Economou, S. Genitsaris, A. Rafteli, G.N. Hotos, D. V. Vayenas, A.G. Tekerlekopoulou

Energetic potential evaluation of medical wastes for using as solid recovered fuels
D. Torres, M. Fonseca Almeida, **S.C. Pinho**

Training A New Generation Of farmers and agricultural entrepreneurs to implement the concept of Circular economy in agriculture – The TANGO-Circular ERASMUS+ project
G. Papadakis, E. Dimitriou, P. Picuno, I. Plantzou, C. Stavropoulou, L. M. Closas, L. Brondelli di Brondello, A. Farrus, F. Baptista, M. E. Mur Cacuho, T. Batista, F. Cordeiro, R. Serra, D. Margout-Jantac

Cultivation of Chlorella Sorokiniana in batch and sequencing batch reactors for winery wastewater treatment
M. Mastori, **A. Xenaki**, E. Zkeri, A.S. Stasinakis

Microsieving of raw sewage at the wastewater treatment plant of Rethymno: Yield and energy content of produced biosolids
A. Manali, C. Kampourakis, P. Gikas

Effect of COVID-19 lockdown on heavy metal contamination in Yamuna river water of Delhi region
K. Lal, M. Uttreja

Application of ionic liquids for bacterial carotenoid extraction
F.Salgado, T.P. Silva, L. Alves, J.C. Roseiro, R.M. Lukasik, **S.M. Paixao**

Process design and life cycle inventory of a syngas fermentation biorefinery
M. Pacheco, J. Ortigueira, P. Moura, C. Silva

Bioremediation of cresols by *Pseudomonas* sp. strain phDV1
A. Lyratzakis, G. Valsamidis, I. Kanavaki, J.D. Langer, G. Tsiotis

Examination of efficient harvesting and drying processes from a microalgae photo-bioreactor
E. Tsantopoulou, **G. Makaroglou**, P. Gikas

CO2 mitigation of industrial flue gas using an attached system microalgal photo-bioreactor
D. Mitrogiannis, **G. Makaroglou**, P. Gikas

Investigation of hydrocyclone performance to municipal wastewater treatment plants
A. Kehagias, **K. Tsamoutsoglou**, P. Gikas

The ReCiProCo project: development of a methodology to measure and communicate the circularity of products
S. Sbaaffoni, V. Fantin

Assessment of the contribution of an innovative biosolids microsieving-gasification system in the formation of the wastewater management legal framework
A. Syrpis, **A. Manali**, P. Gikas

Lignocellulosic Waste Biomass to Advances Biofuels by Acid Hydrolysis
Stephen Dooley

Isolation and determination of the energy content of grease and oil in Wastewater Treatment Plants on the island of Crete
N. Tatas, **A. Manali**, P. Gikas

Lignocellulosic Waste Biomass to Advances Biofuels by Acid Hydrolysis
Stephen Dooley

Treat and Reuse of high organic load wastewater with an innovative compact and modular unit
A. Yfantis, N. Yfantis, T. Angelakopoulou, F. Michelet, G. Giannakakis, N. Ellinakis, S. Dokianakis, E. Vasilaki, N. Katsarakis

International trends in the formation of water tariffs policy for the supply of reclaimed water for reuse purposes
P. Pliatsika, **A. Manali**, P. Gikas

INFO



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2022

Rethymno City map - Conference Rooms

 Rethymno Conservatory

 House of Culture

 Rethymno Youth Center
Access from Tombazi street

 Bus station





Contact

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Design of Environmental Processes Laboratory

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organizers



**Design of
Environmental
Processes Lab**



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Environmental Engineering

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BUNKERING IN PIREUS & KALI LIMENES

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Sponsor



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Supporter



Supporter



Supporter