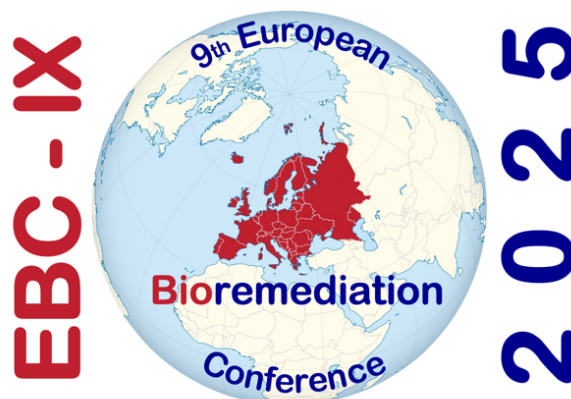


Conference Programme

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(as of June 13, 2025)



June 15–19, Chania, Greece

REGISTRATION DESK IS OPEN:

Sunday (June 15):	17:00 – 18:30
Monday and Tuesday (June 16-17):	08:00 – 13:30 & 14:30 – 17:00
Wednesday and Thursday (June 18-19):	08:00 – 13:30

Sunday, June 15, 2025

18:30 - 19:15	Plenary Lecture #1 – Room A Chairpersons: Nicolas Kalogerakis and Fabio Fava
ID 183	Microbial Electrochemistry in Bioremediation <i>Prof. Sebastià Puig</i> <i>LEQUiA, Institute of the Environment, University of Girona, Girona, Spain</i>
20:00 - 22:30	Welcome Reception at Conference Venue (Minoa Palace Hotel, next to the pool of the North Building – Conference Center near the beach)

Monday, June 16, 2025

09:00 - 09:30	Opening Ceremony – Room A
	N. Kalogerakis, F. Fava , Conference co-Chairs I. Malandrakis , Mayor of Platanias D. Venieri , Vice-Rector, Technical University of Crete
09:40 - 10:30	Plenary Lecture #2 – Room A Chairpersons: Nicolas Kalogerakis and Fabio Fava
ID 184	From Plastics to Micro/Nanoplastics: Potential Health Implications <i>Prof. Philip Demokritou</i> <i>Nanoscience and Environmental Bioengineering, Rutgers School of Public Health, Rutgers University, USA</i>
10:30 - 11:00	Coffee Break and Poster set up

11:00 - 13:00	
Session – 1A: Site remediation (hydrocarbons, chlorinated, and emerging contaminants) – I – Room A	
Chairpersons: Ioannis Ignatiadis and Simona Di Gregorio	
ID 57	Characterization and evaluation of the effectiveness of commercial products for the bioremediation of hydrocarbon-contaminated soils <u>Alessandra Suagher</u> , Asia Rosatelli, Meriam Cheffi, Massimiliano Baric, Anna Espinoza, Tatiana Stella, Fiora Bagnato, Federico Villani, Iaria Pietrini, Luca Serbolisca, Olga Shapran and Andrea Franzetti
ID 01	Bacterial Adsorption and Biofilm Formation at Oil-Water Interfaces: Initial Stages of Bioremediation <u>Guruprakash Subbiahdoss</u> and Erik Reimhult
ID 62	Integrating metagenomics and metabolic modeling for the rational design of microbial consortia in pollutant degradation <u>Akanksha Mishra</u> , Alejandro González, Dmitrii Deev, Tomaž Rijavec, Ales Lapanje and Sara Gil-Guerrero
ID 63	Use of biomolecular and isotopic techniques in a multiple independent lines of evidence approach: a virtuous example of Monitored Natural Attenuation (MNA) design to remediate a chlorinated solvents contaminated site. <u>Francesca Formicola</u> , Tatiana Stella, Silvia Leoci, Valentina Rivelli and Massimiliano Baric
ID 05	Bioremediation and Biotransformation in Contaminated Sediments <u>Danny Reible</u>
ID 06	Metabolic interactions in a technology coupling biological processes and adsorption with biomaterials for chlorinated solvents removal <u>Bruna Matturro</u> , Simona Rossetti, Laura Lorini, Micaela Abruzzese and Marco Petrangeli Papini
ID 117	Shaping dechlorinating communities: insights from bioaugmentation and biostimulation treatability studies <u>Bruna Matturro</u> , Luca Niccolini, Simona Rossetti, Marco Zeppilli, Laura Lorini and Marco Petrangeli Papini
ID 164	Injectability and efficiency of novel ZVI-based Pickering emulsion for the in-situ remediation of soil contaminated with chlorinated solvents <u>Stephanie Betelu</u> , Iliyas Kodebay, Maxime Cochenec, Dorian Davarzani, Antonio Rodriguez De Castro and Ioannis Ignatiadis
FLASH ORAL PRESENTATIONS:	
11:00 - 13:00	
Session – 1B: Circular economy and waste valorization – Room B	
Chairpersons: Vladimiros Papangelakis and Georgios Kolliopoulos	
ID 178	Selective and Eco-Friendly Metal Leaching from E-Waste Using Biocompatible Deep Eutectic Solvents Sara Saffaj, Diego Mantovani and <u>Georgios Kolliopoulos</u>
ID 72	From Contaminated Soil to Ecological Restoration: The Key Role of Bioremediation and Ecotoxicology <u>Davide Rossi</u> , Lorenzo Federico, Sara Villa and Andrea Franzetti
ID 89	MICROBES-4-CLIMATE: Microbial services addressing climate change risks for biodiversity and for agricultural and forestry ecosystems <u>Nelson Lima</u> and Ricardo M. Cruz
ID 40	Green compost as an effective improver of the quality of a degraded agricultural soil co-contaminated by antibiotics and copper <u>Anna Barra Caracciolo</u> , Chiara De Carolis, Lisa Ciadamidaro, Michel Chalot, Alessandra Narciso, Ludovica Rolando and Paola Grenni
ID 135	Valorisation of eyewear commercial cellulose acetate plastic through the production of PHAs <u>Emma Jones</u> , Gonzalo Agustin Martinez, Claudio Gioia, Lukasz Karol Niedzwiecki, Filippo Marchelli, Luca Fiori and Fabio Fava

ID 151	Chicken, Beer, Concrete, and Microorganisms – A Surprising Connection in Recycling <u>Hana Stiborová</u> , Kristýna Kliková, Henrietta Ottova, Petr Holeček, Dana Konakova, Kateřina Demnerová and Václav Nežerka FLASH ORAL PRESENTATIONS:
ID 102	Intercropping of maize with soybean affects plant growth and alters soil bacteriome structure <u>Stefan Shilev</u> , Anyo Mitkov, Mariana Petkova, Yordan Yordanov, Vanya Popova, Mariyan Yanev, Ivelina Neykova and Nikolay Minev
ID 24	Bio-Based Iron Nanoparticles: Effects of Bioactive Compounds and Reducing Agents Marcela Tlčíková, <u>Viktorie Víchová</u> , Hana Horváthová, Ľubomír Jurkovič and Jan Filip
ID 130	Pilot Study to Evaluate Integrated Mussel–Holothurian Farming in Greece: A Nature-Based Approach for Sediment Bioremediation and Biomass Yield <u>Chrysa Efstratiou</u> , Iordanis Magiopoulos, Panagiotis D. Dimitriou, Ioannis Karakassis, Sofia Galinou-Mitsoudi and Antonia Giannakourou
11:00 - 13:00 Session – 1C: Remediation performance evaluation, LCA and CBA – Room C Chairpersons: Denis Sarigiannis and Antonios Gypakis	
ID 76	Leveraging Artificial Intelligence in Bioremediation Driving Sustainable Environmental Solutions <u>Denis Sarigiannis</u> , Achilleas Karakoltzidis, Spyros Karakitsios and Antonios Gypakis
ID 144	Life Cycle Assessment Methods in Economic Sectors focusing on Waste Sector <u>Nikolaos Kalyviotis</u> , Georgina Calypso Kalogerakis and Georgios Kolliopoulos
ID 58	LIFE MySoil: a full-scale assessment of mycoremediation of a hydrocarbon-contaminated soil <u>Fiora Bagnato</u>
ID 45	Whole genome sequencing and metabolic modelling of fungal species isolated from an industrial wasteland Jun Zhou, Akanksha Mishra, Jordan Collot, Marta Franco, Philippe Binet, Sara Gil-Guerrero and <u>Michel Chalot</u>
13:00 - 14:30 Lunch (Minoa Palace Hotel)	
14:30 - 15:00 Coffee break and Poster viewing	
15:00 - 17:00 Session – 2A: Site remediation (hydrocarbons, chlorinated & emerging contaminants) – II – Room A Chairpersons: Bruna Matturro and Sara Gil-Guerrero	
ID 113	MIBIREM for microbiomes degrading hexachlorocyclohexane Giacomo Bernabei, Giampiero De Simone and <u>Simona Di Gregorio</u>
ID 96	In situ enhanced natural attenuation of monoaromatic compounds in groundwater: beyond aerobic biodegradation? <u>Marta Puddu</u> , Gabriele Beretta, Elena Sezenna and Sabrina Saponaro
ID 98	Insight into PFOA defluorination using DMSO/NaOH Raphael Tur, <u>Stéphanie Betelu</u> , Romain Rodrigues, Stefan Colombano, Hossein Davarzani, Sebastien Bristeau, Julien Grandclément, Arnault Perrault, Julie Lions, Eric D. van Hullebusch and Ioannis Ignatiadis
ID 104	Bioelectrochemical Reactor for the Remediation of Trichloroethylene and Chromium (VI) from Contaminated Groundwaters <u>Geremia Sassetto</u> , Maria Presutti, Laura Lorini, Marco Zeppilli and Marco Petrangeli Papini

ID 105	Reductive/Oxidative Bioelectrochemical Removal of Trichloroethylene from Contaminated Water <u>Maria Presutti</u> , Geremia Sassetto, Giulia Simonetti, Bruna Matturro, Marco Petrangeli Papini and Marco Zeppilli
ID 116	Electro-bioremediation for the removal of hydrocarbons and BTEX from groundwater from 300 mL to 3L scale <u>Martí Aliaguilla Cortina</u> , André F. G. Martins, Pau Bosch-Jimenez, David Gramunt Colet, Alfredo Pérez de Mora and Eduard Borràs
	FLASH ORAL PRESENTATIONS:
ID 127	Short- and long-term effects of PFOA on zucchini (<i>Cucurbita pepo</i> L.) in hydroponic culture <u>Lidia Błażalek</u> , Anna Wyrwicka-Drewniak and Elżbieta Kuźniak-Gębarowska
ID 171	Remichimec 50: A Biosurfactant-based soil flushing agent for improved bioremediation of PAHs. <u>Marco Bellagamba</u> , Berardino Barbati, Marco Petrangeli Papini, Laura Lorini and Gabriele Moscatelli
15:00 - 17:00	Session – 2B: Phytoremediation (organics) – Room B Chairpersons: Francesca Mapelli and Eleonora Rolli
ID 17	Guild composition of rhizosphere bacteria exploitable for hydrocarbon bioremediation is driven by ecological interactions. <u>Francesca Mapelli</u> , Eleonora Rolli, Gabriele Capriglia, Luigi Bazzana, Elisa Ghitti, Lorenzo Vergani, Eliana Musmeci, Elena Biagi, Giulio Zanaroli and Sara Borin
ID 49	Unravelling the petroleum hydrocarbon-triggered shift in root exudation of sunflower (<i>Helianthus annuus</i>) <u>Elisa Ghitti</u> , Eleonora Rolli, Francesca Mapelli, Gabriele Capriglia, Luigi Bazzana, Leilei Zhang, Luigi Lucini and Sara Borin
ID 19	Integrating molecular, physiological and analytical approaches to track PFAS bioaccumulation in hemp <u>Patrizia Brunetti</u> , Cristina Caissutti, Davide Marzi, Maria Luisa Antenzio, Francesca Maria Caporusso, Walter Stefanoni, Emanuele Pallozzi and Giuseppe Capobianco
ID 33	Non-flavonoid root exudates shaped the plant “cry-for-help” under polychlorinated biphenyl stress <u>Eleonora Rolli</u> , Elisa Ghitti, Lorenzo Vergani, Francesca Mapelli and Sara Borin
ID 88	Microbial-Enhanced Phytoremediation of Cadmium and Ketoprofen in Estuarine Sediments: A Microcosm Julio Merchán, <u>Rafaela Perdigão</u> , Margarida Pereira, Joana P. Fernandes, Loreto García, C. Marisa R. Almeida and Ana P. Mucha
ID 160	Phytoremediation of soil polluted with zinc and cadmium using the halophytes <i>Lantana camara</i> and <i>Atriplex halimus</i> <u>Eirini Athanasiadou</u> , Elissavet Koukouraki and Alexandros Stefanakis
	FLASH ORAL PRESENTATIONS:
ID 95	The remediation of perfluorooctanoic acid (PFOA) by willow (<i>Salix viminalis</i> L.) and its morphophysiological effects <u>Anna Wyrwicka-Drewniak</u> , Grażyna Chwatko, Alicja Piotrowska-Niczyporuk, Iwona Ciereszko, Fabrizio Pietrini and Massimo Zacchini
ID 119	Modelling Plant-Microbe Interactions for Scalable Phytoremediation: Genome-Scale Metabolic Models and Virtual Replication Tools in the pHYBi Project <u>Akanksha Mishra</u> , Victoria Caballero, Alejandro González-Brincau, Michel Chalot, Rocío Barros-García, Andrea Martos-Domínguez, Diego Soto-Gomez and Humberto Castillo-Gonzalez
ID 122	Pilot study to Evaluate Macroalgae Bioremediation combined with Carbon Footprint Tokenization in port waters of Alicante (Spain) <u>Jesus E. Argente-Garcia</u> , Amelia Canovas Muñoz and Antonio F. Skarmeta Gómez

ID 37	The “Microbiome and Stress Resilience Academy” project <u>Eleonora Rolli</u> , Francesca Mapelli, Iannis Stringlis, Victor Carrion, Laurent Dedieu, Melisa Ozdilek, Christian Espinoza and Annabel Levert
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Tuesday, June 17, 2025

8:30 - 9:25	Plenary Lecture #3 – Room A Chairpersons: Nicolas Kalogerakis and Fabio Fava
ID 185	Scaling-Up Remediation Processes Prof. Marco Petrangeli Papini <i>Department of Chemistry, University of Rome (Sapienza), Rome Italy</i>
9:30 - 10:30	Session – 3A: Plastics and microplastics: fragmentation, monitoring, biodegradation, fate, recycling – I – Room A Chairpersons: Hermann J. Heipieper and Giulio Zанaroli
ID 44 Keynote	Transitioning plastics into the circular bioeconomy through biotechnology <u>Nick Wierckx</u>
ID 38	FINEST Microplastics and PUreValue - Helmholtz funded projects use interdisciplinary approaches for plastic valorization <u>Franziska Lederer</u> , Hermann J. Heipieper, Thomas Maskow, Gert Weber and Dietmar Schlosser
ID 36	Bacterial degradation of plasticizers on the example of diethyl phthalate (DEP) <u>Simone Bertoldi</u> , Christian Eberlein and Hermann J. Heipieper
9:30 - 10:30	Session – 3B: In situ (bio)remediation – I – Room B Chairpersons: Patrizia Brunetti and Valeria Ancona
ID 27	Remediation of contaminated soils combining biochar with bioaugmentation and phytoremediation techniques <u>Laura Passatore</u> , Valentina Mazzurco Miritana, Massimo Zacchini, Fabrizio Pietrini, Eleonora Peruzzi, Serena Carloni, Ludovica Rolando, Gian Luigi Garbini, Anna Barra Caracciolo, Vanesa Silvani, Maria Cristina Moscatelli, Rosita Marabottini, Luisa Massaccesi, Sara Marinari and Isabel Nogués
ID 29	Cyanide degrading microbiomes at former gas plant sites-characterisation, enrichment and strain isolation <u>Thomas Reichenauer</u> , Jessica Beyert, Galina Sidorenko, Johanna Ley and Jan Dolinsek
ID 46	Efficiency assessment of soil remediation through plant growth, physiology and metabolomic analysis Davide Marzi, Valentina Mazzurco-Miritana, Laura Passatore, Massimo Zacchini, Fabrizio Pietrini, Eleonora Peruzzi, Mariana Louro, Carlos Cordeiro, Alessio Cherubini and <u>Isabel Nogués</u>
ID 60	Improving Vinyl Chloride Degradation in Groundwater: A Combined Approach of Aerobic Treatment and Bioaugmentation <u>Camilla Valli</u> , Lucia Cavalca, Sarah Zecchin and Meryem Boukili

10:30 – 11:00 Coffee break and Poster viewing

11:00 – 13:00	Session – 4A: Plastics and microplastics: fragmentation, monitoring, biodegradation, fate, recycling – II – Room A Chairpersons: Isabel Nogués and Franziska Lederer
ID 35	Role of the Oxidative Enzyme Laccase in the Fungal Breakdown of a Synthetic Polyester <u>Stefanie Clauß</u> , Daniel Zahn, Bettina Seiwert and Dietmar Schlosser

ID 34	Real Time Monitoring of Enzymatic Polyethylene Terephthalate Depolymerization Using Calorimetry <u>Noelia Fernandez Merayo</u> , Thomas Maskow, Parinita Singh and Gert Weber
ID 47	Phage surface display for the identification of Nylon6 and Polyethylene terephthalate binding peptides <u>Sonja Harter</u> , Emma Pustlauk, Christoph Bloß and Franziska Lederer
ID 75	Enzymatic Biodegradation of Polyurethanes: Structural Insights into UMG-SP2 <u>Parinita Singh</u> , Frank Lennartz, Da'San M. M. Jaradat and Gert Weber
ID 65	Peptide modified membranes for the separation of polymer degradation products <u>Thomas Krause</u> , Martin Schmidt, Daniel Breite and Franziska Lederer
ID 32	Unraveling the Role of Micropolymers in Xenobiotic Biodegradation: The Critical Influence of Physico-Chemical Parameters Hakan Icoz, Natalia Lisiecka, Marta Woźniak-Karczewska, Hermann J. Heipieper, Tomáš Cajthaml and <u>Łukasz Chrzanowski</u>
ID 31	Diesel Biodegradation in Polystyrene Microplastic-Contaminated Soil - The Role of Water Availability <u>Marta Woźniak-Karczewska</u> , Tomasz Ciesielski, Jaroslav Semerád, Hermann J. Heipieper, Tomáš Cajthaml and Łukasz Chrzanowski
ID 179	Fate of nanoparticles released from tire crumb rubber in model groundwater environments <u>Georgina C. Kalogerakis</u> , Andrew Palucci, Jun-Ray Macairan, and Nathalie Tufenkji
11:00 - 13:00	Session – 4B: In situ (bio)remediation – II – Room B Chairpersons: Thomas Reichenauer and Andreas Loibner
ID 61	Enhancing Reductive Dechlorination of Chloroethenes using Agri-Food Wastes <u>Camilla Valli</u> , Lucia Cavalca and Sarah Zecchin
ID 78	Application of biosorption technology for PFAS removal in water Marta Senofonte, Giulia Simonetti, Stefano Parisi, Laura Lorini, Carmela Riccardi, <u>Naima Blal</u> and Marco Petrangeli Papini
ID 81	Unravelling yeast extract and polyhydroxybutyrate effects on autochthonous bacteria involved in Cr(VI)-polluted groundwater remediation Marina Tumolo, <u>Valeria Ancona</u> , Vito Felice Uricchio and Domenico De Paola
ID 16	Isolation and Characterization of Endophytic Bacteria and Fungi capable of enhancing phyto-remediation of hydrocarbon polluted soil from the Medicinal Plant, <i>Vernonia amygdalina Delile</i> <u>Harrison Atagana</u>
ID 107	Reductive dechlorination of chlorinated solvents in groundwater in an old, polluted site: in situ implementation Stephanie Betelu, Romain Rodrigues, Stéfan Colombano and <u>Ioannis Ignatiadis</u>
ID 121	Magnetite nanoparticles extend radius of influence in microbial electrochemical system for soil bioremediation <u>Marco Resitano</u> , Matteo Tucci, Ghada Sellami, Habib Chouchane, Luca Niccolini, Carolina Cruz Viggi, Bruna Matturro, Ugo Marzocchi and Federico Aulenta
ID 141	Green remediation of Cd-contaminated farmland soils by organic fertilizer <u>Qiaoyun Huang</u>
	FLASH ORAL PRESENTATIONS:
ID 71	Microbial community assemblies for the biodegradation of mixed hydrocarbon pollutants in industrial contaminated soil Eliana Musmeci, Lisa Giovanetti, Giorgia Palladino, Marco Candela, Fabio Fava, Elena Biagi and <u>Giulio Zanaroli</u>

11:00 - 13:00	
Session – 4C: Waste biorefineries – Room C	
Chairpersons: Abraham Esteve-Núñez and Fabio Fava	
ID 173	Photobioelectrochemical-based Circular Economy Strategies for Nutrient Recovery from brewery wastewater <u>Abraham Esteve-Núñez</u> , Ruben Vera, Juan Manuel Ortiz, Fernando Muniesa, Mario Jimenez, Hao Kaiyue and Julieta Capug
ID 70	Second Cheese Whey Upcycling using Purple Non-Sulfur Bacteria Luca Bernabò, Chiara Capelli, Matilde Ciani, Viola Galli, Matteo Daghighio, Carlo Viti, Cecilia Petitta, Matteo Tucci, Marco Resitano, Federico Aulenta, Carolina Cruz-Viggi, Lisa Granchi and <u>Alessandra Adessi</u>
ID 112	Microbial valorisation of peach processing byproducts into bioactive hydrolysates <u>Emma Becattini</u> , Sara Franceschini, Fabio Fava and Noura Raddadi
ID 152	A study of pilot Sludge Treatment Reed Beds for sustainable dewatering of sewage sludge <u>Ioannis Asimakoulas</u> , Panagiotis Regkouzas, Elisavet Koukouraki, Steen Nielsen and Alexandros Stefanakis
ID 64	New Valorization Routes for Urban Bioplastic Waste <u>Stefania Angelini</u> , Giulia Natoli, Agata Gallipoli, Andrea Gianico, Francesca Angelini, Michela Sbicego, Vincenzo Piemonte and Camilla Braguglia
ID 111	Microbial degradation of chrome shavings wastes through a Bacillus safensis L81 desert isolate <u>Sara Franceschini</u> , Mariafederica Parisi, Emma Becattini, Maria Nannini, Martino Colonna, Fabio Fava and Noura Raddadi

13:00 - 14:30	Lunch (Minoa Palace Hotel)
14:30 - 15:00	Coffee Break and Poster viewing

15:00 - 17:00	
Session – 5A: Plastics and microplastics: fragmentation, monitoring, biodegradation, fate, recycling – III – Room A	
Chairpersons: Nick Wierckx and Georgina C. Kalogerakis	
ID 39	Microplastics interactions with Herbicidal Ionic Liquids: Sorption and Toxicity <u>Natalia Lisiecka</u> , Marta Woźniak-Karczewska, Christian Eberlein, Hermann J. Heipieper and Łukasz Chrzanowski
ID 15	Absorption of textile-derived polyethylene terephthalate micro(nano)plastics in Arabidopsis thaliana <u>Davide Marzi</u> , Maria Luisa Antenozio, Cristina Caissutti, Francesca Maria Caporusso, Irene Bavasso, Federico Vinciarelli, Sabrina Sabatini, Mauro Giustini, Marco Aurelio Zezzi Arruda, Carlos Sanz-Lazaro, Ahmed Subrati, Sergio Enrique Moya, Massimo Zacchini and Patrizia Brunetti
ID 86	Advancing bioplastics upcycling: PLA enzymatic depolymerization and membrane-based recovery of lactic acid and its oligomers <u>Caterina Bosticco</u> , Riccardo Onesti, Cristiana Boi and Giulio Zamaroli
ID 118	Enzymatic remediation of polyester microfibers in water, sewage sludge and green compost samples <u>Cristina Palacios Mateo</u> , Esperanza Huerta-Lwanga, Jules Aw Harings and Lars M Blank
ID 73	Biopolymers degradation in freshwater ecosystems <u>Valerio Bocci</u> , Martina De Vivo, Andrea Martinelli, Loris Pietrelli, Simona Crognale, Simona Rossetti, Barbara Tonanzi and Francesca Di Pippo
ID 84	Biodegradation and microbial colonization of different bioplastics at the seawater-sediment interface

ID 94	Eliana Musmeci, Rosaria Capuozzo, Elena Maria Pedone, Arianna Mancuso, Erika Zamboni, Caterina Bosticco, Annamaria Celli, Fabio Fava, Stefano Goffredo, <u>Elena Biagi</u> and Giulio Zanaroli Biodegradation of biopolyesters in an anoxic marine sediment and effects on microbial activities and biodiversity Rosaria Capuozzo, Eliana Musmeci, Elena Maria Pedone, Fabio Fava, Elena Biagi and <u>Giulio Zanaroli</u>
	FLASH ORAL PRESENTATIONS:
ID 79	Biodegradation of Polyamide by Bacteria Isolated from Biofilm Developed on Polyamide Microplastics <u>Ula Putar</u>, Mark Starin, Monika Šabić Runjavec, Marija Vuković Domanovac and Gabriela Kalčíková
ID 59	Valorisation of thermochemically pre-treated thermoplastic starch using an algal-microbial co-culture. <u>Fryni Pyrilli</u>, Evdokia Syranidou and Michalis Koutinas
ID 74	Chemical, physicochemical, morphological and mechanical characterization of biopolymers degradation in freshwater Valerio Bocci, Martina De Vivo, <u>Francesca Di Pippo</u>, Loris Pietrelli, Simona Rossetti and Andrea Martinelli
ID 150	Exploitation of Nanobubble Technology for the Removal of Microplastics from Municipal Wastewater <u>Athina Stavroulaki</u>, Petroula Seridou, Evdokia Syranidou and Nicolas Kalogerakis
15:00 - 17:00 Session – 5B: Molecular biology applications – Room B Chairpersons: Evina Gontikaki and Bruna Maturro	
ID 169	Metagenomic Responses of Eastern Mediterranean Deep-Water Microbial Communities to Hydrocarbon Contamination at in situ Pressure <u>Evina Gontikaki</u>, Alan Barozzi, Georgia Charalampous, Efsevia Fragkou, Eleftheria Antoniou, Daniele Daffonchio and Nicolas Kalogerakis
ID 187	Thermal Plasticity of Microbial Enzymes Shapes Marine Microbiome Assembly <u>Daniele Daffonchio</u>
ID 67	A Hybrid DNA-based Technology: Advancing Environmental Investigations for Bioremediation <u>Silvia Leoci</u>, Massimiliano Baric, Anna Espinoza, Francesca Formicola, Valentina Rivelli, Andrea Franzetti and Tatiana Stella
ID 07	Long-Read Sequencing Technologies: Advantages, Applications, and Functional Prediction for In Situ Bioremediation <u>Bruna Maturro</u>, Luca Niccolini, Simona Rossetti, Andrea Firrincieli, Maurizio Petruccioli and Martina Cappelletti
ID 137	Arsenic effects on the growth of Brassica rapa ecotypes from soils with different geochemical signatures in Southern Italy <u>Shashank Sagar Saini</u>, Maurizio Ambrosino, Paola Frazzetto, Antonio Alecci, Eleonora M Di Salvo, Vincenzo Nava, Nicola Cicero, Domenico Cicchella, Patrizia Brunetti, Davide Marzi and Giuseppe D Puglia
ID 165	Beyond Traditional Remediation: Molecular Biology and Advanced Tools for the Development of Site-Specific Bioremediation Strategies <u>Tatiana Stella</u>, Valentina Rivelli, Francesca Formicola, Silvia Leoci and Massimiliano Baric
ID 123	Molecular Insights into Arsenic Accumulation and Tolerance: A Pathway for Improved Phytoremediation Marzi Davide, Francesca Cazzaniga, Samuele Amati, Greta Palara, Daria Scintu, Giulia Offidani, Maria Luisa Attanonzio, Cristina Caissutti, Patrizia Brunetti and <u>Raffaele Dello Ioio</u>
FLASH ORAL PRESENTATIONS:	
ID 101	The structures of a Bacterial Cyanide Dihydratase and a Fungal Cyanide Hydratase <u>Valeria Valle-Riestra</u> and Santiago Justo
ID 66	Airborne Potential Pathogenic Microorganisms in the Eastern Mediterranean <u>Eleftheria Katsivela</u>, Louiza Raisi, Georgia Vrioni, Theodora Koliou, Stefanos Charpantidis, Athanasios Tsakris and Mihalīs Lazaridis

15:00 - 17:00		Session – 5C: Constructed wetlands – Room C
		Chairpersons: Alexandros Stefanakis and Atef Jaouani
ID 172	Keynote	3D LEGO Design of Bioelectrochemical-Assisted Wetlands (Metlands) to Regenerate and Re-Use Urban Wastewater <u>Abraham Esteve-Núñez</u> , Alejandro Sanchez, Ramiro Blasco-Gómez, Antonio Berna, Karina Boltes, Ramón Esteve, Sheila de Pablo, Silvia Blazquez, Manuel Lopez-Sepulveda, Inmaculada Cuenca, Alvaro Pun, Belén Barroeta, Ángel Hernan-Saez, Juan José Salas, Junkal Garmendia, Serena Molina and Francisco Pablo Gómez
ID 161		Advancing Constructed Wetland Designs for Sustainable Wastewater Treatment <u>Emmanouela Karefylaki</u> , Ioannis Asimakoulas, Elisavet Koukouraki, Panagiotis Regkouzas and Alexandros Stefanakis
ID 177		Nature-Based Solutions for Sustainable Water Treatment: Bridging Wastewater Treatment and Aquifer Recharge Fatma Arous, Hajer Ennouri, Marwa Ben Saad and <u>Atef Jaouani</u>
ID 162		Sustainable treatment of Olive Mill Wastewater using Pilot-scale Vertical and Horizontal Flow Constructed Wetlands <u>Panagiotis Regkouzas</u> , Eirini Athanasiadou, Elisavet Koukouraki and Alexandros Stefanakis
ID 09		Plants and Bacteria: A duo for bisphenols water cleanup? <u>Magdalena Noszczyńska</u> , Magdalena Mitera, Gabriela Zajac, Magdalena Pacwa-Płociniczak, Małgorzata Rudnicka and Tomasz Płociniczak

Wednesday, June 18, 2025		
8:30 - 9:25		Plenary Lecture #4 – Room A
		Session Chairpersons: Nicolas Kalogerakis and Fabio Fava
ID 90		Development of (Bio)Chemical Applications for the Valorization of Food Waste in Integrated Biorefineries <i>Prof. Michalis Koutinas</i> <i>Department of Chemical Engineering, Cyprus University of Technology, Lemesos, Cyprus</i>
9:30- 10:30		Session – 6A: Phytoremediation and bioremediation (metals) – I – Room A
		Chairpersons: Damien Blaudez and Ana Paula Mucha
ID 126		Development of Microbial Consortia for Enhanced Phytoremediation in Salt Marshes: Combining Conventional Enrichment and iACME Selection Tools <u>Margarida Pereira</u> , Joana P. Fernandes, Dmitrii Deev, Maja Zupan, Tomaž Rijavec, Aleš Lapanje, C. Marisa R. Almeida and Ana P. Mucha
ID 03		Hemp (Cannabis sativa L.) Plants as Potential Bio-Tool to Remove and Recover Lithium from Contaminated Substrates Fabrizio Pietrini, Gianluca D'Onofrio, Davide Marzi, Laura Passatore, Lorenzo Massimi, Maria Luisa Astolfi and <u>Massimo Zacchini</u>
ID 18		Investigating the Optimal Growth Conditions of the Fern Pteris vittata for Efficient Phytofiltration of Arsenic from Drinking Water <u>Maria Luisa Antenzio</u> , Davide Marzi, Sara Michetti, Clara Sette, Enrico Veschetti, Luca Lucentini, Lorenzo Massimi, Alice Zara, Patrizia Brunetti and Maura Cardarelli
ID 142		Bacterial Core Species Play a Critical Role in Heavy Metal Immobilization <u>Wenli Chen</u>
FLASH ORAL PRESENTATIONS:		
ID 42		A Phytomanagement Success Story at a Red Gypsum Landfill Stéphane Pfendler, Lisa Ciadamidaro, Damien Blaudez and <u>Michel Chalot</u>

09:30 - 10:30 Session – 6B: Marine oil spills – Room B	
Chairpersons: Danny Reible and Eleftheria Antoniou	
ID 153	Is in-situ Burning an Acceptable Mitigation Option After a Major Oil Spill? <u>Iordanis Magiopoulos</u> , Christos Chantzaras, Filomena Romano, Eletheria Antoniou, Katerina Symiakaki, Rodrigo Almeda, Ioanna Kalantzi, Kyriaki Mylona, Constantine Parinos, Christina Pavloudi, Manolis Tsapakis, Giulio Zanaroli, Nicolas Kalogerakis and Paraskevi Pitta
ID 167	Deep-Sea Oil Spill Bioremediation: Nutrient and Dispersant Effects Under High-Pressure Conditions <u>Efsevia Fragkou</u> , Georgia Charalampous, Eleftheria Antoniou, Evangelia Gontikaki and Nicolas Kalogerakis
ID 166	Modelling Subsea Oil Spill Dynamics and Biodegradation Southwest of Crete <u>Efsevia Fragkou</u> , Eleftheria Antoniou, Evangelia Gontikaki and Nicolas Kalogerakis
ID 158	Tailored Microbial Consortia for Hydrocarbon Bioremediation: A Contribution to the Green Ports Strategy <u>Maria Luis Bôto</u> , Maria Paola Tomasino, Rafaela Perdigão, C. Marisa Almeida and Ana Paula Mucha

10:30 - 11:00 Coffee break and Poster viewing
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11:00 - 13:00 Session – 7A: Phytoremediation and bioremediation (metals) – II – Room A	
Chairpersons: Michel Chalot and Massimo Zacchini	
ID 30	Insights into the use of Graphene Oxide to Recover As-polluted soil: an Interdisciplinary Point of View <u>Verónica Peña-Álvarez</u> , Diego Baragaño, Salvador Sánchez, Alexander Prosenkov, Aida González, José Luis R. Gallego and Ana Isabel Peláez
ID 80	Assessment of Plant-Assisted Bioremediation and Bioaugmentation Strategies Effectiveness for Multi-Contaminated Soil Rehabilitation Cristina Cavone, Gino Naclerio, Antonio Bucci, Anna Barra Caracciolo, Aurora Rutigliano, Pietro Cotugno, Ludovica Rolando, Ilaria Savino, Paola Grenni, Fulvio Celico, Vito Felice Uricchio and <u>Valeria Ancona</u>
ID 131	Optimizing Phytoremediation: Isolation and Inoculation of PGPRs in <i>Phragmites australis</i> for Metal Removal <u>Alberto Soto-Cañas</u> , Ana Arnaiz, Aqib Hassan Ali Khan, José Carlos Castilla-Alcántara, Elena Clavel-Millan, Andrea Martín-Pablo, Carlos Rad, Sonia Ramos-Gómez, Natividad Ortega, Blanca Velasco-Arroyo and Rocío Barros
ID 143	Assessment of salt tolerant plants for phytoremediation capacity of laterite mine spoils <u>Petroula Seridou</u> , Evdokia Syranidou, Vasiliki Karmali, Konstantinos Komnitsas, Georgios Kolliopoulos and Nicolas Kalogerakis
ID 145	Plant and rare earth elements (REEs): from transfer and accumulation to cellular responses <u>Damien Blaudez</u> , Nicolas Grosjean, Michel Chalot, Léo Goudard, Catherine Sirguy, Antony Van der Ent and Marie Le Jean
ID 14	Enhanced Remediation of Cd and Pb Laden Sediments Using Combined Approach of Biochar Based Immobilization and Phytoextraction <u>Abhijit Debnath</u> , Prabhat Kumar Singh and Yogesh Chandra Sharma
ID 91	Biodegradable Water Absorbing Geocomposites (BioWAG) and Soil Microorganisms for Enhanced Phytoremediation of Heavy Metals <u>Krzysztof Lejcuś</u> , Ahmed Tamma, Wiesław Fiałkiewicz, Daria Marczak, Jakub Misiewicz, Aleksandra Bawiec, Zbigniew Lazar, Anna Kancelista and Agnieszka Medyńska-Juraszek

FLASH ORAL PRESENTATIONS:

- ID 109 Innovative Nature-Based Solutions for the Phytomanagement of Polluted Soils Across Europe**
Yoann Boisson, Manhattan Lebrun, Lisa Ciadamidaro, Fabienne Tatin Froux, Efi Alexopoulou, Kosta Iordanoglou, Walter Zegada Lizarazu, Engracia Madejon, Paula Madejon, Peter Welters, Aleksandra Zgórska, Nicolas Manier and Michel Chalot
- ID 147 Phytomanagement of Metal-Contaminated Soils by Trees and Herbaceous Plants: Effect of Fungal Inoculation**
Damien Blaudez, Lisa Ciadamidaro, Stéphane Pflender, Loïc Yung, Catherine Sirguez and Michel Chalot
- ID 175 NBSOIL Academy for Soil Advisors – Activating the Potential of Nature Based Solutions to Remediate Contaminated Soils**
Grzegorz Siebielec and Javier Montellano

11:00 - 13:00 Session – 7B: Ex situ bioremediation – Room B

Chairpersons: Jofre Herrero and Anestis Vlysidis

- ID 23 Keynote Mining Tailings Remediation with Resource Recovery via Continuous Multi-Stage Bioleaching**
Leonardo Shen, Elizabeth Edwards, Radhakrishnan Mahadevan and Vladimiro Papangelakis
- ID 51 LIFE MySOIL Project – Guidelines for Implementation of Mycoremediation**
Jofre Herrero, Caroline Zaoui, Ilaria Chicca, Rafael Antón-Herrero, Carlos García-Delgado, Enrique Eymar, Alessandro D'Annibale, Silvia Crognale, Laurent Thannberger, Jorge Diamantino, Cynthia Alcántara, Norbert Nägele, Fiora Bagnato, Anko Fischer and Carme Bosch
- ID 68 BIO2BIO: Design and Application of Biosurfactant-functionalized Biochar for Enhanced Bioremediation**
Asia Rosatelli, Fabrizio Beltrametti, Adriana Bava, Francesco Battaglia, Marco Mendola, Filippo Passaro, Mentore Vaccari, Alessandro Abbà, Dilshan Sandaruwan Premathilake and Andrea Franzetti
- ID 154 Ex-situ Bioremediation of Hydrocarbon-Contaminated Soils Using Pure and Mixed Bacterial Cultures in Solid-Liquid Phase Bioreactors**
Anestis Vlysidis, Athanasia Dimitrelou, Dimitra Theodosi-Palimeri, Marianthi Louka, Stavros Kontogeorgakis, Andigoni Malousi, Esmeralda Dushku and Charalampos Kotzamanidis
- ID 54 CREOSOLVE Project – Disposal of Used Wooden Railway Sleepers and Other Creosote Oil-Impregnated Wood Using Various Microbial Agents**
Mateusz Sydow, Magdalena Komorowicz, Aleksandra Kropacz, Anna Stangierska, Marta Woźniak-Karczewska and Wojciech Czekala
- ID 20 Assessing the Potential of Phyto- and Mycoremediation for Polluted Fibrous Sediments Reclamation**
Gabriela Paladino, Burcu Hacıoğlu, Firoz Shah, Gabriel Dupaul and Erik Hedenström
- ID 53 NYPHE Project: Eni Rewind's bioremediation field tests**
Federico Santoro, Mauro Barompriori, Maria Alejandra Decima and Federico Villani
- ID 04 Removal of Pharmaceuticals by a Combined Approach of Ozonation and Fungal Biological Treatment**
Juan Antonio Gutiérrez-Quirós, Didier Ramírez-Morales, Michael Méndez-Rivera, Víctor Castro-Gutiérrez, Mario Masís-Mora and Carlos Rodríguez-Rodríguez

13:15 – 19:15 Free Time

13:30 - 17:30 NYPHE project meeting – I – Room B

20:00 - 00:30 Conference Gala Dinner
 Location: SAPEL HALL, Agia Marina
 (Busses leave at 19:15 from the main entrance of the hotel venue)

Thursday, June 19, 2025

8:30 - 9:25 Plenary Lecture #5 – Room A

Session Chairpersons: Nicolas Kalogerakis and Fabio Fava

ID 186 EU Research and Innovation for Ocean and Waters Restoration, Pollution and Resilience
Dr. Elisabetta Balzi
DG Research and Innovation, European Commission, Brussels, Belgium

9:30 - 10:30 Session – 8A: Microalgae – Room A

Chairpersons: Petros Gikas and Alessandra Adessi

ID 180 Evaluation of CO₂ Capture by Microalgae under Industrial Fue Gas Exposure
 Georgios Makaroglou, Dimitrios Mitrogiannis, Nicolas Kalogerakis, Petros Gikas

ID 138 Optimization of Nutrient Removal from Municipal Wastewater by integrating Microalgae and Constructed Wetlands
Theocharis Nazos, Chara Dolgira, Daniel Mamais, Constantinos Noutsopoulos and Simos Malamis

ID 139 Groundwater Quality Improvement Using Microalgae as a Nature-Based Solution
Ilias Chatzimpalis, Theocharis Nazos, Daniel Mamais, Constantinos Noutsopoulos and Simos Malamis

ID 103 Enhanced Heavy Metal Biosorption Using Cyanobacterial Exopolysaccharides: Insights into Cu Removal and Microbead-Based Adsorption Cycles
Matilde Ciani, Giovanni Orazio Lepore, Luca del Gaudio, Roberto de Philippis and Alessandra Adessi

09:30-10:30 Session – 8B: Wastewater treatment – I – Room B

Chairpersons: Joana Pereira and Simona Rossetti

ID 182 Anaerobic-Aerobic Processes for Enhanced Pharmaceutical Removal from Hospital Wastewater
Keynote
Michail Fountoulakis

ID 108 Is it possible to culture microalgae in aquaculture effluents? A low-cost floating bioreactor
Iordanis Magiopoulos, Filomena Romano, Antonia Giannakourou, Ioannis Karakassis, Paraskevi Pitta and Manolis Tsapakis

ID 92 Electro-biodegradation of Oily Wastewater using Pseudomonas: Insights upon Feeding and Starvation periods
 Constantina Varnava, Ioannis Ieropoulos, Epameinondas Leontidis and Argyro Tsipa

10:30-11:00 Coffee break and Poster viewing

11:00-13:00 Session – 9A: Biotransformation and removal of emerging contaminants – Room A

Chairpersons: Korneel Rabaey and Philippe Corvini

ID 181 Bioremediation in the Urban Environment – Treatment and Recovery at Source
Keynote
Korneel Rabaey

ID 28 Strategies for Isolating Recalcitrant Pollutant-Degrading Consortia: Metagenomic and Biodegradation Analysis

Jose Carlos Castilla Alcantara, Dmitrii Deev, Alberto Soto Cañas, Elena Clavel Millan, Blanca Velasco Arroyo, Tomaž Rijavec, Rosa Posada Baquero, Jose Julio Ortega Calvo, Aleš Lapanje and Rocio Barros Garcia

ID 132 Study on the microbiome preservation in PFAS-impaired soil and sediment for bioremediation
Marco Andreolli, Asma Nawaz, Beatrice Tontini and Silvia Lampis

ID 148	Identification of Indoor Malodour Degrading Bacteria and Their Study in Commercial Applications <u>Madiha Siddiqui</u> , Sam Bakelants, Sarah Lebeer, Wenke Smets and Dieter Vandenheuevel
ID 156	Blue Biobank Digital Research Platform - improving access of aquatic bioresources for bioremediation solutions Maria Luis Bôto, Carlos Faria, Érica Freitas, Gonçalo Passos, Fernando Cassola Marques, Artur Rocha, Marco Amaro Oliveira and <u>Ana Paula Mucha</u>
11:00-13:00 SESSION – 9B: Wastewater treatment – II – Room B Chairpersons: Argyro Tsipa and Michalis Fountoulakis	
ID 134	Long-Term evaluation of MBBR technology for partial denitrification and anammox using Ethanol or Methanol with actual wastewater <u>Akarsh Swamilingappa Annaiah</u> , Magnus Christensson and Gonzalo Agustin Martinez
ID 163	Performance of Pilot Sludge Treatment Reed Beds for Sludge Dewatering and Stabilization under a Hot and Arid Climate Towards Biosolids Reuse <u>Alexandros Stefanakis</u> , Tahra Talib Al-Rashdi and Mushtaque Ahmed
ID 52	Enhancing Olive Groves' Soil Quality by Utilising Residues Generated From Olive Cultivation and Olive Oil Production: A Year-Long Monitoring Study <u>Aimilia Stefanatou</u> , Alexandros Kalampokidis, Theodora Maneka, Michalis Pavlidis, Michalis Veloutsos, Alexandros Galanidis, Fenia Galliou, Thrassyvoulos Mnios, Dimitrios Fragkiskos Lekkas, Panagiotis Dimitrakopoulos, Nikolaos Fyllas, Stergios Vakalis and Michail Founoulakis
ID 100	Pollutant Profile Complexity governs Wastewater Removal of Recalcitrant Pharmaceuticals Marcel Suleiman, Francesca Demaria, <u>Philippe Corvini</u> , Natalie Le Lay, Boris A. Kolvenbach, Mariana S. Cretoiu, Alexandre Jousse and Owen L. Petchey
ID 77	Lolium Perenne - A Tool for Bisphenol Removal from Wastewater – Does it Make Sense? <u>Julia Borówka</u> , Magdalena Noszczyńska, Magdalena Zielińska, Katarzyna Bułkowska, Zuzanna Szczecina, Małgorzata Rudnicka and Tomasz Płociniczak FLASH ORAL PRESENTATIONS:
ID 106	Unveiling the Potential of Microorganisms Isolated from Activated Sludge to Degrade Pharmaceuticals: Ketoprofen and Venlafaxine <u>Inês C. Leal</u> , Ana P. Mucha, C. Marisa R. Almeida and Joana P. Fernandes
ID 11	Impact of Pentoxifylline Degradation by a ZnO/Visible Light System on Plant Growth and Physiological Responses <u>Maria Paiu</u> , Paula Sânziana Oprea, Lidia Favier, Doina Lutic, Raluca Hlihor, Veronique Alonzo and Maria Gavrilescu
ID 41	Single-stage Partial Nitrification/Anammox System: Process Performance and Community Structure <u>Barbara Tonanzi</u> , Alessia Ayala Alban, Simone Pau, Simona Crognale, Stefano Milia, Alessandra Carucci and Simona Rossetti
ID 115	Adsorptive removal of Contaminants of Emerging Concern from Urban Wastewater using Bivalve Shells Fátima Jesus, Érica Pascoal, Vânia Calisto, Ramiro Blasco-Gómez, Abraham Esteve-Núñez, Mario Jiménez-Conde, Silvia Blázquez-Hernández, Isabel López Heras, Simona Vosáhlava, Tereza Kodešová, Robin Kycelt and <u>Joana Pereira</u>
ID 170	Selection of Microbial Pharmaceuticals Degradars and Design of a Membrane Aerated Biofilm Reactor for their Exploitation in Wastewater Tertiary Treatment Eliana Musmeci, Caterina Bosticco, Rachele De Cata, Nicola Lasagna, Lisa Giovanetti, Dario Frascari, Davide Pinelli, Fabio Fava, <u>Elena Biagi</u> and Giulio Zanaroli
13:00 - 14:30	Lunch (Minoa Palace Hotel)
14:30 - 15:00	Coffee break and Poster removal

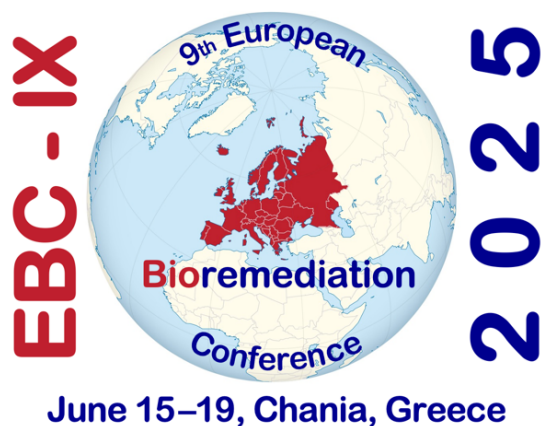
15:00-18:00	Session – 10A: EU Bioremediation Cluster – Room A
15:00-15:20	Overview of EU funding and policy on bioremediation Elizabetta Balzi , DG Research and Innovation, EC)
15:20-16:00	Flash presentations of EU bioremediation projects Chairs: Fabio Fava (Univ. of Bologna) and Philippe Corvini (FHNW)
	NYMPHE project Giulio Zanaroli, Univ. of Bologna
	MIBIREM project Thomas Reichenauer, Austrian Inst. of Technology
	BIOSYSMO project Sara Gil-Guerrero, IDENER R&D
	SYMBIOREM project Leire Ruiz-Rubio, Univ. of Basque Country
	EDAPHOS project Michel Chalot, UMLP
	pHYBi project Akanksha Mishra, IDENER R&D
	IASIS project Michel Chalot, UMLP
	LIFE MySoil project Jofre Herrero, EURECAT
	BIOREM project Rocío Barros-Garcia, Univ. of Burgos
16:10-17:00	Panel Discussion #1: Technical discussion with representatives of ALL4BIOREM cluster projects Moderator: Fabio Fava, Univ. of Bologna <u>Topics covered:</u> - Leveraging the potential of microbiomes for environmental bioremediation - Latest developments in environmental bioremediation technologies - How bioremediation of soils can contribute to enhance the competitiveness of bio-based industries and ensure the responsible use of critical raw materials - Exploiting the multifaceted potentials for valorisation of byproducts generated through environmental bioremediation

17:00-17:50	Panel Discussion #2: Technical discussion with representatives of ALL4BIOREM cluster projects Moderator: Philippe Corvini, FHNW <u>Topics covered:</u> - How can the ALL4BIOREM cluster contribute to define future research & innovation priorities in the EU - How could the cluster enlarge its target audience and scope, to also cover other dimensions of environmental bioremediation – e.g. the oceans - How can we ensure a stronger link of environmental bioremediation to human health / one health and ecosystem restoration - Going forward, how could ALL4BIOREM use available EU funding options to extend its activities beyond research & innovation
17:50-18:00	Wrap up and closing remarks by the chairs <i>Fabio Fava</i>, University of Bologna, Italy and <i>Philippe Corvini</i>, FHNW, Switzerland
18:00-18:30	Closing Ceremony and Awards (best oral & poster presentation awards for graduate students)
18:30	END OF CONFERENCE

Friday, June 20, 2025	
08:00-18:00	Conference Trips 1) Agia Irene gorge and Sougia beach or 2) Botanical Park and nature tour
09:00-17:00	NYMPHE project meeting – II (Room B)

Conference Programme

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(as of May 21, 2025)

POSTER PRESENTATIONS

Poster set up: Monday 10:30
Presentation period: Monday 14:30 to Thursday 11:30
Poster removal: Thursday 12:00

Topic #1: In-situ (bio)remediation of soil and groundwater

- ID 71** Microbial community assemblies for the biodegradation of mixed hydrocarbon pollutants in industrial contaminated soil
Eliaana Musmeci, Lisa Giovanetti, Giorgia Palladino, Marco Candela, Fabio Fava, Elena Biagi and Giulio Zanaroli
- ID 157** Fruit waste-based microcarriers for enhance bioremediation of organic pollutants: evaluation in real polluted soil.
Sara Muñana, Mojtaba Ostovar, Pilar Brettes, Josu Berganza, Alazne Galdames, Maider Orueta, José Julian Esteban, José Luis Vilas and Leire Ruiz Rubio

Topic #2: Ex-situ bioremediation

- ID 83** Effects of soil-to-substrate ratio on the remediation of PAH polluted soils through outdoor co-composting
Ondřej Lhotský, Kateřina Němcová, Monika Heřmánková, Alena Filipová, Petra Najmanová and Tomáš Cajthaml

Topic #3: Site remediation (hydrocarbons, chlorinated, and emerging contaminants)

- ID 127** **Short- and long-term effects of PFOA on zucchini (*Cucurbita pepo* L.) in hydroponic culture**
Lidia Błażulek, Anna Wyrwicka-Drewniak and Elżbieta Kuźniak-Gębarowska
- ID 164** **Injectability and efficiency of novel ZVI-based Pickering emulsion for the in situ remediation of soil contaminated with chlorinated solvents**
Stephanie Betelu, Iliyas Kodebay, Maxime Cochenne, Dorian Davarzani, Antonio Rodriguez De Castro and Ioannis Ignatiadis
- ID 171** **Remichimec 50: A Biosurfactant-based soil flushing agent for improved bioremediation of PAHs.**
Marco Bellagamba, Berardino Barbati, Marco Petrangeli Papini, Laura Lorini and Gabriele Moscatelli
- ID 176** **Biodegradation of hydrocarbons by *Kocuria rosea* BU22S and genomic insights for bioremediation**
Mouna Mahjoubi, Habib Chouchane, Simone Cappello, Habibu Aliyu, Ahmed Slehedine Masmoudi and Ameer Cherif
- ID 12** **Microbial Strategies for Crude Oil Biodegradation: From Microcosm Experiments to Field Deployment**
Hana Horváthová, Roman Tóth, Anton Drábik, Denys Kravchenko, Petra Olejníková and Ján Derco
- ID 48** **Exploring bioremediation possibilities of MTBE-contaminated groundwater by enrichment culturing**
Erzsébet Baka, Renáta Ábrahám, Andrea Csépanyi, Balázs Kriszt and András Táncsics
- ID 22** **Alkane degradation under hypoxic conditions: the rise of *Acinetobacter* and the down of Actinobacteriota**
András Táncsics, Erzsébet Baka, Andrea Csépanyi and Balázs Kriszt
- ID 25** **Microbial Strategies for Crude Oil Biodegradation: From Microcosm Experiments to Field Deployment**
Zdena Skrob, Monika Cvancarova and Tomas Cajthaml
- ID 69** **Development and Characterisation of Bacterial Consortium for Bioremediation of γ -HCH-polluted Soils**
Alexander Prosenkov, Verónica Peña Álvarez, Silvia Tocino Antonio, José Luis R. Gallego and Ana Isabel Peláez
- ID 125** **Mining of toluene and xylene degraders from contaminated soil**
Tereza Smrhova, Frantisek Masek, Jachym Suman, Michal Strejcek, Veronika Rippelova, Lenka McGachy and Ondrej Uhlik

Topic #4: Phytoremediation (organics)

- ID 95** **The remediation of perfluorooctanoic acid (PFOA) by willow (*Salix viminalis* L.) and its morphophysiological effects**
Anna Wyrwicka-Drewniak, Grażyna Chwatko, Alicja Piotrowska-Niczyporuk, Iwona Ciereszko, Fabrizio Pietrini and Massimo Zacchini
- ID 119** **Modelling Plant-Microbe Interactions for Scalable Phytoremediation: Genome-Scale Metabolic Models and Virtual Replication Tools in the pHYBi Project**
Akanksha Mishra, Victoria Caballero, Alejandro González-Brincáu, Michel Chalot, Rocío Barros-García, Andrea Martos-Domínguez, Diego Soto-Gomez and Humberto Castillo-Gonzalez
- ID 122** **Pilot study to Evaluate Macroalgae Bioremediation combined with Carbon Footprint Tokenization in port waters of Alicante (Spain)**
Jesus E. Argente-Garcia, Amelia Canovas Muñoz and Antonio F. Skarmeta Gómez
- ID 37** **The ‘Microbiome and Stress Resilience Academy’ project**
Eleonora Rolli, Francesca Mapelli, Iannis Stringlis, Victor Carrion, Laurent Dedieu, Melisa Ozdilek, Christian Espinoza and Annabel Levert

ID 21	A study of endophytic microorganisms and their positive effect on wheat plant development (<i>Triticum aestivum</i> L.) <u>Tereza Bočková</u> , Blanka Vrchotová, Jan Pecka, Marie Lhotská and Petra Lovecká
ID 82	Plant-Assisted Bioremediation: Potential of Root Exudates and Challenges with Microplastics Ilaria Savino, Paola Grenni, Aurora Rutigliano, Claudia Campanale, Anna Barra Caracciolo, Cristina Cavone, Vito Felice Uricchio and <u>Valeria Ancona</u>
ID 155	Enhance bioremediation and phytoremediation by local plant species and fruit waste microcarriers <u>Pilar Brettes</u> , Mojtaba Ostovar, Sara Muñana, Josu Berganza, Alazne Galdames, Maider Orueta, José Julian Esteban, José Luis Vilas Vilela and Leire Ruiz Rubio
ID 55	Biodegradation potential of Air Pollutants by Phyllosphere Microbiome in Milan urban Area (Italy) <u>Riccardo Grimoldi</u> , Isabella Gandolfi, Maya Petricciuolo, Andrea Firrincieli, Ermanno Federici, Vittorio Vinciguerra, Maurizio Petruccioli, Silvia Crognale and Andrea Franzetti
ID 120	Plant Growth-Promoting Bacteria for Improved Phytoremediation of Contaminated Sites <u>Lýdie Jakubová</u> , Julie Červená, Tereza Šmrhová, Jáchym Šuman and Ondřej Uhlík

Topic #5: Constructed wetlands

ID 26	The WeTreat Project: Advancing Wetland-Based Solutions for Micropollutant Removal in Wastewater Treatment <u>Maria Rodrigues</u> , Antonella Castagna, Luísa Custódio, Lorenzo Guglielminetti, Silvia Venditti and Thomas Wagner
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Topic #6: Biotransformation and removal of emerging contaminants

ID 140	Legacy of organic pollutants and micropollutants in landfill leachate Markéta Poslušná, Jaroslav Semerád, Ivan Titov, Jiří Hyks and <u>Tomáš Cajthaml</u>
ID 146	Uncovering emerging contaminants in drinking water: Development and application of a novel methodological workflow <u>Jaroslav Semerád</u> , Pavlína Česká and Tomáš Cajthaml

Topic #7: Phytoremediation and bioremediation (metals)

ID 42	A Phytomanagement Success Story at a Red Gypsum Landfill Stéphane Pfendler, Lisa Ciadamidaro, Damien Blaudez and <u>Michel Chalot</u>
ID 109	Innovative Nature-Based Solutions for the Phytomanagement of Polluted Soils Across Europe Yoann Boisson, Manhattan Lebrun, Lisa Ciadamidaro, Fabienne Tatin Froux, Efi Alexopoulou, Kosta Iordanoglou, Walter Zegada Lizarazu, Engracia Madejon, Paula Madejon, Peter Welters, Aleksandra Zgórska, Nicolas Manier and <u>Michel Chalot</u>
ID 147	Phytomanagement of Metal-Contaminated Soils by Trees and Herbaceous Plants: Effect of Fungal Inoculation <u>Damien Blaudez</u> , Lisa Ciadamidaro, Stéphane Pflender, Loïc Yung, Catherine Sirguez and Michel Chalot
ID 175	NBSOIL Academy for Soil Advisors – Activating the Potential of Nature Based Solutions to Remediate Contaminated Soils <u>Grzegorz Siebielec</u> and Javier Montellano
ID 85	Biorecovery of Valuable Metals from Fiberbank Contaminated Sites Using Indigenous Yeast Strains <u>Mojtaba Asadollahi</u> , Gabriela Paladino, Erik Hedenström, Firoz Shah and Shiromini Gamage.

ID 114	Heavy Metal-Induced Stress in Desert Flora: Insights from Chromium-Exposed <i>Prosopis juliflora</i> <u>Kamal Usman</u> , Mohammed Alsafran and Talaat Ahmed
ID 133	Microfluidic assay protocol for the determination of growth inhibition in <i>C.elegans</i> Océane Jan, Medhi Dionigi, <u>Eve-Line Bancel</u> , Olivier Fournier, Théo Gavoille, Alan Morin, Anatole Geffrault, Nicolas Manier and Julia Sepulveda.

Topic #8: Marine oil spills	
Topic #9: Molecular biology applications	
ID 101	The structures of a Bacterial Cyanide Dihydratase and a Fungal Cyanide Hydratase <u>Valeria Valle-Riestra</u> and Santiago Justo
ID 66	Airborne Potential Pathogenic Microorganisms in the Eastern Mediterranean <u>Eleftheria Katsivela</u> , Louiza Raisi, Georgia Vrioni, Theodora Koliou, Stefanos Charpantidis, Athanasios Tsakris and Mihalīs Lazaridis
ID 159	Deciphering the physiology and metabolic potential of the sulfate reducing bacteria, <i>Halodesulfovibrio aestuarii</i> <u>Roberto Orellana</u> , Josefina Abarca-Hurtado, Alejandra Arancibia, Cristian Giovine, Alessandra Suagher, Michael Seeger and Andrea Franzetti
ID 43	Functional and genomic traits of Hg-resistant microbial strains isolated from a chlor-alkali site Lorraine Meyer, Jun Zhou, Akanksha Mishra, Marta Franco, Sara Gil-Guerrero, Nicolas Capelli, Stéphane Guyot and <u>Michel Chalot</u>
ID 10	Membrane fatty acid as a marker of differences in microbial communities <u>Petra Lovecka</u> , Blanka Vrchotova, Anna Kosinova and Jan Rieger
ID 50	PFAS affect the function of intracellular esterases in unicellular alga <i>Raphidocelis subcapitata</i> <u>Michaela Hegrová Helusová</u> , Johana Kašparová and Tomáš Cajthaml

Topic #10: Microalgae	
Topic #11: Wastewater treatment	
ID 106	Unveiling the Potential of Microorganisms Isolated from Activated Sludge to Degrade Pharmaceuticals: Ketoprofen and Venlafaxine <u>Inês C. Leal</u> , Ana P. Mucha, C. Marisa R. Almeida and Joana P. Fernandes
ID 11	Impact of Pentoxifylline Degradation by a ZnO/Visible Light System on Plant Growth and Physiological Responses <u>Maria Paiu</u> , Paula Sânziana Oprea, Lidia Favier, Doina Lutic, Raluca Hlihor, Veronique Alonzo and Maria Gavrilescu
ID 41	Single-stage Partial Nitrification/Anammox System: Process Performance and Community Structure <u>Barbara Tonanzi</u> , Alessia Ayala Alban, Simone Pau, Simona Crognale, Stefano Milia, Alessandra Carucci and Simona Rossetti
ID 115	Adsorptive removal of Contaminants of Emerging Concern from Urban Wastewater using Bivalve Shells Fátima Jesus, Érica Pascoal, Vânia Calisto, Ramiro Blasco-Gómez, Abraham Esteve-Núñez, Mario Jiménez-Conde, Silvia Blázquez-Hernández, Isabel López Heras, Simona Vosáhlava, Tereza Kodešová, Robin Kycelt and <u>Joana Pereira</u>
ID 170	Selection of Microbial Pharmaceuticals Degradors and Design of a Membrane Aerated Biofilm Reactor for their Exploitation in Wastewater Tertiary Treatment Eliana Musmeci, Caterina Bosticco, Rachele De Cata, Nicola Lasagna, Lisa Giovanetti, Dario Frascari, Davide Pinelli, Fabio Fava, <u>Elena Biagi</u> and Giulio Zanolli

Topic #12: Waste biorefineries

ID 08 Application of biochar as a drought stress solution

Petr Soudek, Šárka Petrová, Daniel Haisel and Lenka Langhansová

Topic #13: Remediation performance evaluation, LCA & CBA

Topic #14: Plastics and microplastics: fragmentation, monitoring, biodegradation, fate, recycling

ID 79 Biodegradation of polyamide by bacteria isolated from biofilm developed on polyamide microplastics

Ula Putar, Mark Starin, Monika Šabić Runjavec, Marija Vuković Domanovac and Gabriela Kalčíková

ID 59 Valorisation of thermochemically pre-treated thermoplastic starch using an algal-microbial co-culture.

Fryni Pyrilli, Evdokia Syranidou and Michalis Koutinas

ID 74 Chemical, physicochemical, morphological and mechanical characterization of biopolymers degradation in freshwater

Valerio Bocci, Martina De Vivo, Francesca Di Pippo, Loris Pietrelli, Simona Rossetti and Andrea Martinelli

ID 150 Exploitation of nanobubble technology for the removal of microplastics from municipal wastewater

Athina Stavroulaki, Petroula Seridou, Evdokia Syranidou and Nicolas Kalogerakis

ID 99 Dual roles of microalgae: from plastic waste biodegradation to bioplastic generation

Gennaro D'Ambrosio, Chiara Miele, Felice Napolitano, Gennaro Gentile, Federico Olivieri, Edgardo Filippone, Maria Antonietta Rao and Pasquale Chiaiese.

ID 168 Structure-based improvement of plastic-degrading enzymes

Frank Lennartz, Parinita Singh, Camilla Genter-Dieguez, Gless Christine, Jelena Mijatovic, Christina Papaehymiou, Paolo Da Silva, Manfred Weiss and Gert Weber

Topic #15: Circular economy and waste valorisation

ID 102 Intercropping of maize with soybean affects plant growth and alters soil bacteriome structure

Stefan Shilev, Anyo Mitkov, Mariana Petkova, Yordan Yordanov, Vanya Popova, Mariyan Yanev, Ivelina Neykova and Nikolay Minev

ID 24 Bio-Based Iron Nanoparticles: Effects of Bioactive Compounds and Reducing Agents

Marcela Tlčíková, Viktorie Víchová, Hana Horváthová, Lubomír Jurkovič and Jan Filip

ID 130 Pilot Study to Evaluate Integrated Mussel–Holothurian Farming in Greece: A Nature-Based Approach for Sediment Bioremediation and Biomass Yield

Chrysa Efstratiou, Iordanis Magiopoulos, Panagiotis D. Dimitriou, Ioannis Karakassis, Sofia Galinou-Mitsoudi and Antonia Giannakourou

ID 174 Plant support mechanisms of bacteria isolated from the long-term industrial waste deposit

Sylvia Siebielec, Malgorzata Wozniak, Aleksandra Ukalska-Jaruga, Andrzej Lewicki, Jakub Pulka, Szymon Szufa, Piotr Piersa, Lukasz Adrian and Grzegorz Siebielec

ID 87 Circular Relationship between Climate Change, Healthy Ecosystems and Soil Microbes: Didactic Proposals for Sustainable Education in Portugal and Brazil

Ricardo M. Cruz and Nelson Lima

ID 129 Enhanced biohydrogen production from cheese whey: Integrating dark fermentation and microbial electrolysis

Cecilia Petitta, Matteo Tucci, Marco Resitano, Matteo Daghighi, Chiara Capelli, Matilde Ciani, Carlo Viti, Alessandra Adessi, Federico Aulenta, Luca Di Palma and Carolina Cruz Viggi

ID 13	Plant extracts in the circular economy: A zero-waste natural resource of antifungal and estrogenic substances <u>Lucie Černá</u> , Angelina Massyagutova, Martin Staněk and Petra Lovecká
ID 128	Enhancing anaerobic sludge digestion with electrically conductive materials in bioelectrochemical systems <u>Carolina Cruz Viggi</u> , Alessandra Scotti, Marco Resitano, Matteo Tucci, Andrea G. Capodaglio, Arianna Callegari and Federico Aulenta