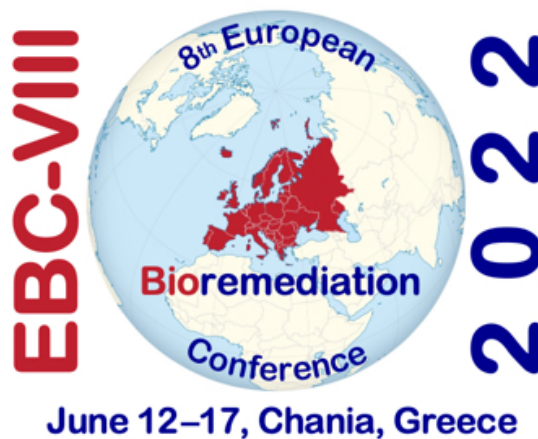


Conference Programme



(as of May 19, 2022)

REGISTRATION DESK IS OPEN:

Sunday afternoon (June 12):	13:00 – 18:30
Monday and Tuesday (June 13-14):	08:00 – 13:30 & 17:00 – 20:30
Wednesday and Thursday (June 15-16):	08:00 – 13:30

SUNDAY, JUNE 12TH, 2022

18:30 - 19:15	WELCOME PLENARY – ROOM A Chairpersons: Nicolas Kalogerakis & Fabio Fava
ID 191	ELECTROBIOREMEDIATION, A NEW PLAYER IN THE WATER SECTOR: CASE STUDIES Professor Abraham Esteve Núñez <i>Chemical Engineering Department, University of Alcalá, Madrid, Spain</i>
20:00 - 22:00	Ice-breaker & Welcome Party at Conference Venue (Minoa Palace Hotel, next to the pool of the North Building – Conference Center near the beach)

MONDAY, JUNE 13TH, 2022

09:00 - 09:30	Opening Ceremony – ROOM A N. Kalogerakis, F. Fava, Conference co-Chairs N. Kalogeris, Region of Crete E. Diamantopoulos, Rector, Technical University of Crete
09:30 - 10:15	PLENARY LECTURE #1 – ROOM A Chairpersons: Nicolas Kalogerakis & Fabio Fava
ID 187	BACTERIA FEEDING ON ANTIBIOTICS - EATING THE POISONOUS. THE CASE OF <i>MICROBACTERIUM BRI</i> AND <i>SULFONAMIDES B</i> Professor Philippe Corvini <i>Institute for Ecopreneurship, School of Life Sciences, FHNW (Switzerland)</i>
10:15 - 10:45	Coffee break & Poster set up

10:45 - 13:00		SESSION - 1A: Marine Pollution and Blue Biotechnology – I (ROOM A) Chairpersons: Concetta M. Messina and Danny Reible
ID 196 (Keynote)	MARINE BIOTECHNOLOGY IN SUPPORT OF THE AGENDA 2030 FOR THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) Concetta Maria MESSINA Department of Earth and Marine Science, Università degli Studi di Palermo, Italy	
ID 44	SPONGES: POTENTIAL BIOFILTERS FOR THE REMEDIATION OF POLLUTED AQUACULTURE REGIONS? <u>Despoina Varamogianni-Mamatsi</u> ^{1,2} , T.I. Anastasiou ¹ , E. Vernadou ¹ , N. Kouvarakis ¹ , E. Kagiampaki ¹ , N. Kalogerakis ² , T. Dailianis ^{1*} and M. Mandalakis ^{1*} ¹ Inst. of Marine Biology, Biotech. & Aquaculture, Hellenic Centre for Marine Research, Heraklion, Greece ² School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece	
ID 93	THE RED SEA, AN EXTREME OCEAN YIELDING NOVEL HYDROCARBON-DEGRADING PROKARYOTES <u>Daniele Daffonchio</u> , G. Michoud, G. Merlino, A. Barozzi, F.O. Sefrji and R. Marasco Red Sea Research Center (RSRC), Biological and Environmental Sciences and Engineering Division (BESE), King Abdullah University of Science and Technology (KAUST), Saudi Arabia	
ID 50	ENRICHMENT OF PIEZOTOLERANT HYDROCARBON DEGRADERS FROM DEEP WATER COMMUNITIES OF THE EASTERN MEDITERRANEAN SEA <u>Georgia Charalampous</u> ¹ , E. Fragkou ¹ , N. Kalogerakis ^{1,2} , E. Antoniou ^{1,3} , E. Gontikaki ^{1,3} ¹ School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece ² Institute of GeoEnergy, Foundation for Research and Technology Hellas, Chania, Greece ³ School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece	
ID 116	OIL PLUME DEGRADATION BY UNDISTURBED DEEP SEA MICROBIAL COMMUNITIES, USING A NOVEL HIGH-PRESSURE APPARATUS E. Antoniou ^{1,2} , <u>Efsevia Fragkou</u> ¹ , G. Charalampous ¹ , D. Marinakis ² , N. Kalogerakis ^{1,3} , E. Gontikaki ³ ¹ School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece ² School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece ³ Institute of GeoEnergy, Foundation for Research and Technology Hellas, Chania, Greece	
ID 45	FLASH ORAL PRESENTATIONS: BIOSTIMULATION EFFECT OF DIFFERENT PHAs ON A MARINE PCB DECHLORINATING MICROBIAL COMMUNITY A. Botti ¹ , <u>Giulio Zanaroli</u> ¹ and F. Fava ³ ¹ Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, Bologna, Italy,	
ID 51	COMPARISON OF HYDROCARBON-DEGRADING CONSORTIA FROM SURFACE AND DEEP WATERS OF THE EASTERN MEDITERRANEAN SEA <u>Georgia Charalampous</u> ¹ , E. Fragkou ¹ , K.A. Kormas ² , A.B. De Menezes ³ , P.N. Polymenakou ⁴ , N. Pasadakis ^{5,6} , N. Kalogerakis ^{1,6} , E. Antoniou ^{1,5} , and E. Gontikaki ^{1,6} ¹ School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece ² Dept of Ichthyology and Aquatic Environment, University of Thessaly, 38446 Volos, Greece ³ School of Biology and Environmental Science, University College Dublin, Belfield, Ireland ⁴ Institute of Marine Biology, Biotechnology and Aquaculture, HCMR, Heraklion, Greece ⁵ School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece ⁶ Institute of Geoenergy, Foundation for Research and Technology Hellas, Chania, Greece	
10:45 - 13:00		SESSION - 1B: Bioremediation of Contaminated Sites (ROOM B) Chairpersons: TBA
ID 121	TEAM WORK AMONG CIBORIA SP. AND BACTERIA TO THE DEPLETION OF TPH IN HISTORICALLY POLLUTED SOIL I. Chicca ^{1,3} , S. Becarelli ^{1,2} , D.B. Levin ^{2,3} , C. Masini ⁴ , <u>Simona Di Gregorio</u> ¹ ¹ Dept of Biology, University of Pisa, Pisa, Italy; ² BD Biodigressioni, Pisa, Italy ³ Dept of Biosystem Engineering, University of Manitoba, Winnipeg, Canada ⁴ DND Biotech, Pisa, Italy	
ID 73	COMBINATION OF BIOLOGICAL DENITRIFICATION AND CHEMICAL REDUCTION WITH nZVI THE REMOVAL OF NITRATE FROM GROUNDWATER <u>Oriol Gibert</u> ¹ , D. Sánchez ² , J.L. Cortina ^{1,3} ¹ Chemical Engineering Department, EEBE, Universitat Politècnica de Catalunya (UPC)-BarcelonaTech, c/Eduard Maristany 10-14, Barcelona, Spain ² Cetaqua-Water Technology Centre, c/ Severo Ochoa 7, Málaga, Spain ³ Cetaqua-Water Technology Centre, Carretera d'Esplugues 75, Cornellà de Llobregat, Spain	

ID 131	<p>EFFECT OF SOIL AMENDMENTS ON SHORT TERM Sb AND Pb MOBILIZATION FROM SHOOTING RANGE SOILS Lara da Costa^{1,2}, Benjamin Bühlmann¹, Moritz F. Lehmann², Markus Lenz¹ ¹ Institute for Ecopreneurship, School of Life Sciences, FHNW, Muttensz, Switzerland ² University of Basel, Dept of Environmental Science; Basel, Switzerland</p>
ID 22	<p>DEGRADATION OF PESTICIDES BY SELECTED BACTERIAL ISOLATES <u>Alberto Leombruni</u> and M. Mueller Evonik Active Oxygens, LLC, United States</p>
ID 17	<p>BIOREMEDIATION OF AN OIL SPILL-CONTAMINATED SITE BY PHYTOREMEDIATION AND BIOPILE TECHNOLOGIES P. Angelini¹, M. Pianu¹, M. Mancini¹, G. Cerutti², A. Francioli², S. Citterio³, E. Casati³, A. Franzetti^{3,4}, Tatiana Stella⁴ ¹ Eni-Energy Evolution Green / Traditional Refining & Marketing, Italy ² HPC Italia Srl, Milano, Italy ³ Dept of Earth and Environmental Sciences, University of Milano-Bicocca, Milano, Italy ⁴ M3R-Monitoring and Management of Microbial Resources Srl, Milano, Italy</p>
ID 140	<p>HYDROCARBON BIOREMEDIATION STUDIES IN PORTUGUESE SOIL SAMPLES S. Almeida¹, Fátima Nunes Serralha^{1,2}, C. Coelho^{1,2} ¹ Escola Superior de Tecnologia do Barreiro, Instituto Politécnico de Setúbal, Portugal ² CiQuiBio, Instituto Politécnico de Setúbal, Portugal</p>
ID 81	<p>FLASH ORAL PRESENTATIONS: IN-SITU INTEGRATED BIOLOGICAL APPROACHES FOR THE REMEDIATION AND THE REQUALIFICATION OF A HYDROCARBON POLLUTED URBAN AREA <u>Crognale Silvia¹</u>, R. Cristina¹, L. Davide¹, L. Dario¹, L.G. Valsecchi², D. Lia³, De Angelis Paolo¹ ¹ DIBAF University of Tuscia, Viterbo, Italy ² Municipality of Pesaro, Italy ³ Regional Agency for the Environmental Protection of Marche, Italy</p>
ID 71	<p>COMBINED ADDITION OF BIOCHAR, BIOACTIVATORS AND PLANTS AS A SYNERGIC STRATEGY FOR THE TREATMENT OF PETROLEUM HYDROCARBON-CONTAMINATED SOIL V. Mazzurco Miritana¹, L. Passatore¹, M. Zacchini¹, F. Pietrini¹, S. Carloni¹, E. Peruzzi², S. Marinari³, L. Massacesi³, A. Barra Caracciolo⁴, P. Grenni⁴, L. Rolando⁴, <u>Isabel Nogues¹</u> ¹ Research Inst. on Terrestrial Ecosystems, National Research Council (IRET-CNR), Rome, Italy ² Research Inst. on Terrestrial Ecosystems, National Research Council (IRET-CNR) Pisa, Italy ³ Dept for Innovation in Biological, Agro-food and Forest systems DIBAF – Univ. of Tuscia, Viterbo, Italy ⁴ Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy</p>
ID 101	<p>COPPER BIOACCUMULATION STATUS AND PHYTOREMEDIATION POTENTIAL OF SOME AGRICULTURAL PLANT SPECIES GROWING IN POLLUTED AGRICULTURAL LANDS OF ARMENIA P. Obregon, F. Merino and <u>Susana Gutierrez</u> Microbiology and Microbial Biotechnology Laboratory, Biological Sciences Faculty, Universidad Nacional Mayor de San Marcos, Lima, Lima, Peru</p>
ID 80	<p>COMBINED ROLE OF GRANULAR FORMULATIONS OF KINNERETIA ASACHHAROPHILA AND ORGANIC AMENDMENTS IN BIOREMEDIATION OF RDX CONTAMINATED SOILS <u>Mohd Aamir Khan</u>, S. Yadav, S. Sharma and A. Sharma ¹ Indian Institute of Technology Delhi, India ² Amity University, Uttar Pradesh, India</p>

13:00 - 14:00 LUNCH (Minoa Palace Hotel)

14:00 - 17:00 FREE TIME

**17:00 - 17:30 SESSION - 2A-I: Marine Pollution and Blue Biotechnology – II (ROOM A)
Chairpersons: Daniele Daffonchio and Evina Gontikaki**

ID 01 ASSESSING SEDIMENT RECONTAMINATION AND BIOACCUMULATION BY STORMWATER HEAVY METALS

Ilektra Drygiannaki¹, D. Reible¹, B. Rao¹, J.A. Dawson¹, M. Rakowska¹, M. Bejar¹, N.T. Hayman², G. Rosen², M.A. Colvin², B. Chadwick², R. Pitt³, B. Steets⁴, M. Otto⁴, and J. Ervin⁴

¹Texas Tech University, Lubbock, TX, USA

²Naval Information Warfare Center Pacific, 4301 Pacific Highway San Diego, CA, USA

³University of Alabama, Ret., Tuscaloosa, AL, USA

⁴Geosyntec Consultants, USA

ID 104

CESIUM (Cs+) RADIONUCLIDE REMEDIATING EXTRACELLULAR POLYMERIC SUBSTANCES (EPS) FROM MARINE ARCHAEA HALOCOCCUS SP., AND THEIR CHARACTERIZATION

Pitchiah Sivaperumal^{1&3} Kannan Kamala², and Dhanraj G.,³

¹Marine Biomedical Research Lab & Environmental Toxicology Unit, Cellular and molecular research centre, Saveetha Dental College and Hospitals, Saveetha University, Chennai, Tamil Nadu, India

²Dept of Microbiology, Saveetha Dental College and Hospitals, Saveetha Institute of Medical & Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

³Dept of Prosthodontics & Implantology, Saveetha Dental College and Hospitals, Saveetha Institute of Medical & Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

FLASH ORAL PRESENTATIONS:

ID 83

THE DIATOM PHAEODACTYLUM TRICORNUTUM MODULATES BIOACTIVE COMPOUNDS BIOSYNTHESIS IN RESPONSE TO ENVIRONMENTAL STRESS: FROM LAB SCALE TO APPLICATION IN AN INTEGRATED MULTITROPHIC AQUACULTURE SYSTEM

Concetta Maria Messina¹, E. Curcuraci¹, S. Manuguerra¹, C. Hellio², A. Santulli^{1,2,3}

¹Department of Earth and Marine Sciences DiStEM, University of Palermo, Trapani, Italy

²Université de Brest, IRD, CNRS, Ifremer, LEMAR, F-29280 Plouzané, France

³Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Trapani, Italy

ID 132

DIATOMS FOR HEAVY METAL REMEDIATION: PRELIMINARY STUDIES FOR COPPER REMOVAL

E. Cavalletti¹, P. Chiaiese², L. Barra³, A. Gallo⁴, M. Spinelli⁵, A. Amoresano⁵, Giovanna Romano¹, S. Balzano¹ and A. Sardo¹

¹Stazione Zoologica Anton Dohrn Napoli, Dept of Ecosustainable Marine Biotechnologies, Napoli, Italy

²University of Naples Federico II, Dept of Agricultural Sciences, Portici (NA), Italy

³Stazione Zoologica Anton Dohrn Napoli, Dept of Ecosustainable Marine Biotechnologies, Amendolara (Cs)

⁴Stazione Zoologica Anton Dohrn Napoli, Dept of Biology and Evolution of Marine Organisms, Italy

⁵University of Naples Federico II, Department of Inorganic and Organic Chemistry, Napoli, Italy

17:30 - 18:30

SESSION - 2A-II: Water Issues (ROOM A)

Chairpersons: Daniele Daffonchio and Fabio Fava

ID 167

ABATEMENT OF MICRO-POLLUTANTS AND DISINFECTION IN WATERCOURSES: THE INTRIGUING ROLE OF THE WATER MATRIX

Aphroditi Kyriazi¹, Iosifina Gounaki¹, Dionissios Mantzavinou² and Danae Venieri¹

¹School of Chemical & Environmental Engineering, Technical University of Crete, Greece

²Department of Chemical Engineering, University of Patras, Greece

ID 181

TOWARDS INTEGRATED AND SUSTAINABLE WATER MANAGEMENT IN TUNISIA AS WATER STRESSED SOUTHERN MEDITERRANEAN COUNTRY

Atef Jaouani

Institut Supérieur des Sciences Biologiques Appliquées de Tunis, Université de Tunis El Manar, Tunisia

ID 130

PER- AND POLYFLUORINATED ALKYL SUBSTANCES (PFASs) IN AQUATIC ENVIRONMENTS IN CZECHIA

Tomáš Cajthaml and J. Semerád

Institute for Environmental Studies, Faculty of Science, Charles University, Prague, Czech Republic

FLASH ORAL PRESENTATIONS:

ID 24

DISINFECTION OF WATER BY UV IN THE PRESENCE OF POLYETHYLENE MICROPLASTICS

K. Manoli¹, Andrea Naziri¹, I. Ttofi¹, C. Michael¹, I.J. Allan² and D. Fatta- Kassinos^{1,3}

¹Nireas-International Water Research Center, University of Cyprus, Nicosia, Cyprus.

²Norwegian Institute for Water Research, Oslo, Norway.

³Dept of Civil and Environmental Engineering, University of Cyprus, Nicosia, Cyprus.

ID 172

MICROBIALY-INDUCED CARBONATE PRECIPITATION BY ARTHROBACTER, BACILLUS AND MICROCOCCUS SPECIES ISOLATED FROM MARINE SEDIMENTS
Panagiotis Persianis¹, Rea Fournari¹, Ioannis Rigopoulos¹, Ioannis Ioannou¹, Argyro Tsipa^{1,2}

ID 166	<p>¹Department of Civil and Environmental Engineering, University of Cyprus, Nicosia, Cyprus ²Nireas International Water Research Center, University of Cyprus, Nicosia, Cyprus</p> <p>APPLICATION OF OZONATION IN DISINFECTION OF SALINE WATER: ENHANCED POTENTIAL FOR BALLAST WATER TREATMENT BY OZONE NANOBUBBLES TECHNOLOGY</p> <p><u>Petroula Seridou</u> and N. Kalogerakis</p> <p>School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece</p>
<p>17:00 - 18:10 SESSION - 2B-I: Mycoremediation and composting (ROOM B) Chairpersons: Eleni Papazoglou & Anestis Vlysidis</p>	
ID 04	<p>A STEP FURTHER IN BIOREMEDIATION: MYCOREMEDIATION FOR SOIL RECOVERY</p> <p><u>Jofre Herrero Ferran</u>¹, Carme Bosch¹, Fiora Bagnato², Norbert Nägele³, Cynthia Alcántara³, Jorge Diamantino-Miranda³, Laurent Thannberger⁴, Silvia Crognale⁵, Enrique Eymar⁶, Carlos García-Delgado⁷, Ilaria Chicca⁸, Caroline Zaoui⁸, Anko Fischer⁹</p> <p>¹ Water, Air and Soil Unit, Eurecat - Technological Centre of Catalonia, Manresa, Spain ² Eni Rewind, San Donato Milanese, Italy ³ Kepler Ingeniería y Ecogestión SL, Burgos, Spain ⁴ VALGO, Petit-Couronne, France ⁵ Dept for Innovation in Biological, Agri-food and Forestry Systems, University of Tuscia, Tuscia, Italy ⁶ Dept of Agricultural Chemistry and Food Science, Universidad Autónoma de Madrid, Madrid, Spain ⁷ Dept of Geology and Geochemistry, Universidad Autónoma de Madrid, Madrid, Spain ⁸ Novobiom, Ottignies-Louvain-la-Neuve, Belgium ⁹ Isodetect, Leipzig, Germany</p>
ID 149	<p>DEGRADATION OF SELECTED ENDOCRINE DISRUPTORS DURING SEWAGE SLUDGE COMPOSTING</p> <p><u>Katerina Sirova</u>^{1,2}, T. Cerna¹, A. Grasserova^{1,2} and T. Cajthaml^{1,2}</p> <p>¹ Institute for Environmental Studies, Faculty of Science, Charles University, Czech Republic ² Institute of Microbiology of the Czech Academy of Sciences, Czech Republic</p>
ID 57	<p>A NOVEL APPROACH OF COMPOST MATURITY EVALUATION USING THE CIELAB COLOR MODEL</p> <p><u>Dimosthenis Tsivas</u>¹, Apostolos Vlyssides¹, <u>Anestis Vlysidis</u>^{1,2}</p> <p>¹ School of Chemical Engineering, National Technical University of Athens, Greece ² School of Chemical and Environmental Engineering, Technical University of Crete, Greece</p>
<p>FLASH ORAL PRESENTATIONS:</p>	
ID 125	<p>VERMIREMEDIATION OF MICROPOLLUTANTS FROM SEWAGE SLUDGE AND ITS EFFECT ON EARTHWORMS</p> <p><u>Alena Grasserova</u>^{1,2}, Natividad Isabel Navarro Pacheco^{1,3,4}, Jaroslav Semerad^{1,2}, Tomas Cajthaml^{1,2}</p> <p>¹ Institute of Microbiology of the Czech Academy of Sciences, Prague, Czech Republic ² Faculty of Science, Institute for Environmental Studies, Charles University, Prague, Czech Republic ³ First Faculty of Medicine, Charles University, Prague, Czech Republic ⁴ Cavanilles Institute of Biodiversity and Evolutionary Biology, Univ. of Valencia, Paterna, Valencia, Spain</p>
ID 118	<p>DRAFT GENOME SEQUENCE OF CEPHALOTRICHUM SP. MUT 6686 (SORDARIO-MYCETES; MICROASCACEAE): INSIGHTS FOR MYCOREMEDIATION OF PETROLEUM-CONTAMINATED SITES.</p> <p><u>Domenico Davolos</u> and B. Pietrangeli</p> <p>Dept of Techn. Innovations and Safety of Plants, Products and Anthropic Settlements, INAIL, Rome, Italy.</p>
ID 114	<p>GENOME SEQUENCING OF THE HCH-DEGRADING PENICILLIUM GRISEOFULVUM MUT 5854, FIRST GENETIC DATA INTO MYCOREMEDIATION OF HCH-POLLUTED SITES</p> <p><u>Davolos Domenico</u>¹, Ceci Andrea², Maggi Oriana² and Persiani Anna Maria²</p> <p>¹Dept of Techn. Innovations and Safety of Plants, Products and Anthropic Settlements, INAIL, Rome, Italy. ²Dept of Environmental Biology, Sapienza University of Rome, Rome, Italy</p>
ID 106	<p>VERMICOMPOST IMPROVES THE BIOREMEDIATION EFFICIENCY IN AN AGED CONTAMINATED SOIL WITH RECALCITRANT HYDROCARBONS</p> <p><u>S. Curiel-Alegre</u>^{1,2}, <u>Blanca Velasco-Arroyo</u>¹, A. Martínez², C. Rumbo¹, A. Hassan-Ali Khan¹, J.A. Tamayo-Ramos¹, J.L.R. Gallego³, C. Rad² and R. Barros¹</p> <p>¹ ICCRAM, Universidad de Burgos, Edificio I+D+i, Burgos, Spain ² UBUCOMP, Universidad de Burgos, Facultad de Ciencias, Burgos, Spain ³ Environmental Biogeochemistry & Raw Materials Group and INDUROT, Mieres, Spain</p>
<p>18:10 - 18:30 SESSION - 2B-II: Biodegradation – I (ROOM B) Chairpersons: Daniele Daffonchio & Rainer Meckenstock</p>	

ID 96	<p>CULTURE-DEPENDENT AND IN SILICO APPROACH TO ISOLATE AND STUDY HYDROCARBUROCLASTIC AND PGPR BACTERIA <u>Ilaria Chicca</u>¹, <u>S. Becarelli</u>^{1,2}, <u>G. Bernabei</u>¹, <u>G. Siracusa</u>¹ and <u>S. Di Gregorio</u>¹ ¹ Department of Biology, University of Pisa, Italy ² BD Biodigressioni srl, Pisa, Italy</p> <p>FLASH ORAL PRESENTATIONS:</p>
ID 128	<p>BIODEGRADING BIOFILMS ON INNOVATIVE BIOPOLYMERIC SUPPORTS <u>Elisa Maria Petta</u>¹, <u>M.C. Citarrella</u>², <u>R. Scaffaro</u>², <u>S. Cappello</u>³, <u>P. Quatrini</u>¹ and <u>V. Catania</u>⁴ ¹ Dept of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), University of Palermo, Palermo, Italy ² Dept of Engineering, University of Palermo, Palermo, Italy ³ Inst. for Biological Resources and Marine Biotech., National Research Council (CNR) of Messina, Italy ⁴ Dept of Earth and Marine Sciences (DiSTeM), University of Palermo, Palermo, Italy</p>
18:30 - 19:00 Coffee break & Poster Viewing	
18:30 – 20:30 SESSION – 3A: Bioelectrochemical Systems for Bioremediation (ROOM C) Chairpersons: Philippe Corvini & Abraham Esteve-Núñez	
ID 108	<p>LABORATORY VALIDATION AND DEVELOPMENT OF AN UPSCALED FIELD TEST OF A SEQUENTIAL REDUCTIVE/OXIDATIVE BIOELECTROCHEMICAL PROCESS FOR CHLORINATED ALIPHATIC HYDROCARBONS REMOVAL IN CONTAMINATED GROUNDWATER <u>E. Dell'Armi</u>, <u>M. Zeppilli</u>, <u>M. Petrangeli Papini</u> and <u>Mauro Majone</u> Department of Chemistry University of Rome Sapienza Piazzale Aldo Moro 5 00185 Rome Italy</p>
ID 134	<p>ANTIBIOTICS REMOVAL USING ELECTROACTIVE ANODIC BIOFILMS IN A SINGLE CHAMBER BIOELECTROCHEMICAL REACTOR <u>Eduard Borràs</u>¹, <u>V. González</u>², <u>P. Solorzano-Vives</u>², <u>S. Lladó</u>¹, <u>P. Sánchez-Cueto</u>¹, <u>M. Aliaguilla</u>¹ and <u>A. Pérez-de-Mora</u>³ ¹ LEITAT Technological Center, Circular Economy Dept, Terrassa, Spain ² LEITAT Technological Center, Circular Economy Dept, Barcelona, Spain ³ TAUW GmbH, Dept. of Soil & Groundwater, Munich, Germany</p>
ID 145	<p>BIOELECTROCHEMICAL REMEDIATION OF HEAVY METALS POLLUTED GROUNDWATER FROM INDUSTRIAL AREAS <u>Martí Aliaguilla</u>¹, <u>P. Bosch-Jimenez</u>², <u>D. Molognoni</u>², <u>E. Borràs</u>¹, <u>H. De Wilde</u>³ and <u>A. Pérez-de-Mora</u>⁴ ¹ LEITAT Technological Center, Circular Economy Department, Terrassa, Spain ² LEITAT Technological Center, Energy and Engineering Dept, Terrassa, Spain ³ Dept. of Soil & Groundwater, TAUW België nv, Lokeren, Belgium ⁴ Dept. of Soil & Groundwater, TAUW GmbH, Munich, Germany</p>
ID 10	<p>COUPLING OF ELECTRODIALYSIS AND BIO-ELECTROCHEMICAL SYSTEMS FOR METAL AND ENERGY RECOVERY FROM ACID MINE DRAINAGE <u>Yelitza Delgado González</u>, <u>J. Llanos López</u> and <u>F.J. Fernández-Morales</u> Chemical Engineering Dept, University of Castilla-La Mancha, Spain</p>
ID 38	<p>INFLUENCE OF ELECTRO-CONDUCTIVE FILTER MATERIALS IN CONSTRUCTED WETLAND REACTORS ON CO₂ AND CH₄ PRODUCTION <u>Annegret Budach</u>¹, <u>G. Favoino</u>^{1,2}, <u>J. A. Müller</u>^{1,3}, <u>A. Miltner</u>¹ and <u>M. Kästner</u>¹ ¹ Helmholtz Centre for Environmental Research, Dept of Environmental Biotechnology, Germany ² Dept of Computational and Quantitative Biology, Institute of Biology Paris Seine, France ³ Institute for Biological Interfaces, Karlsruhe Institute of Technology, Germany</p> <p>FLASH ORAL PRESENTATIONS:</p>
ID 100	<p>INTEGRATED SYSTEMS FOR EFFECTIVE ENVIRONMENTAL REMEDIATION <u>Rocío Barros</u>¹, <u>B. Velasco Arroyo</u>¹, <u>A. Hassan Ali Khan</u>¹, <u>S. Curiel</u>¹, <u>E. Borràs</u>², <u>M. di Lorenzo</u>³, <u>A. Pérez-de-Mora</u>⁴ and <u>C. Rad</u>⁵ ¹ International Research Center in Critical Raw Materials for Advanced Industrial Technologies (ICCRAM). University of Burgos, Burgos, Spain. ² LEITAT Technological Center, Circular Economy Dept, Terrassa, Barcelona, Spain ³ Dept of Chemical Engineering and Centre for Biosensors, Bioelectronics & Biodevices (C3Bio), University of Bath, Claverton Down, UK ⁴ TAUW GmbH, Dept. of Soil and Groundwater, München, Germany ⁵ Research Group in Composting (UBUCOMP). University of Burgos, Faculty of Sciences, Burgos Spain.</p>

ID 47	<p>INSIGHT THE SOIL MICROBIAL COMMUNITY OF TERRESTRIAL MICROBIAL FUEL CELLS PRODUCING BIOENERGY <u>Anna Barra Caracciolo</u>¹, G.L. Garbini^{1,2}, L. Rolando¹, A. Visca¹, V. Ancona³, D. Borello⁴, G. Gagliardi⁴, C. Cosentini⁴, P. Grenni¹</p> <p>¹Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy ²Dept of Ecology and Biological Sciences, Tuscia University, Viterbo, Italy ³Water Research Institute, National Research Council (IRSA-CNR) Bari, Italy ⁴Dept of Mechanical and Aerospace Engineering, Sapienza University of Rome, Italy</p>
ID 143	<p>EFFECT OF GAMMA IRRADIATION PRETREATMENT ON THIABENDAZOLE DEGRADATION COUPLED TO ENERGY PRODUCTION BY BIOELECTRO-CHEMICAL PROCESS <u>Nesrine Saidi</u>¹, B. Erable², R. Chaouachi¹, S. Saadaoui¹, L. Etcheverry², A. Slaheddine Masmoudi¹, A. Cherif¹, H. Chouchane¹</p> <p>¹ Univ. Manouba, ISBST, BVBGR-LR11ES31, Biotechpole Sidi Thabet, Ariana, Tunisia ² Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France</p>
<p>18:30 – 20:30 SESSION – 3B: Biodegradation – II (ROOM B) Chairpersons: Daniele Daffonchio & Rainer Meckenstock</p>	
ID 49	<p>BIODEGRADATION OF GRAPE POMACE OF VITIS VINIFERA ASYRTIKO BY CHLAMYDOMONAS REINHARDTII <u>Maria Belenioti</u>¹, Eirini Mathioudaki¹, Evrykleia Spyridaki² and Nikolaos Chaniotakis¹</p> <p>¹Division of Analytical Chemistry, Dept of Chemistry, University of Crete, Voutes, Greece ² Agrochemicals of Crete, Industrial Area of Heraklion, Heraklion, Greece</p>
ID 84	<p>FACTORS DETERMINING THE MICROBIAL CONTAMINATION OF AUDIO-VISUAL MATERIALS <u>Kateřina Demnerová</u>, T. Branyřová, M. Durovic and H. Stiborova</p> <p>Dept of Biochemistry and Microbiology, Univ. of Chemical Technology Prague, Prague, Czech Republic</p>
ID 124	<p>BIOFILM-BASED TREATMENT OF LIGNIN-RICH WASTEWATER Shamas Tabraiz, Himani Taneja and <u>Asma Ahmed</u></p> <p>Section of Natural and Applied Sciences, Canterbury Christ Church University, UK</p>
ID 18	<p>SIZE DISTRIBUTION OF AIRBORNE MICROBES IN A MUSEUM ENVIRONMENT <u>Eleftheria Katsivela</u>¹, A. Raisi^{1,2}, A. Saridaki², T. Glytsos², N. Kalogerakis² and M. Lazaridis²</p> <p>¹Dept of Electronic Engineering, Hellenic Mediterranean University, Chania, Greece ²School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece</p>
ID 152	<p>ELUCIDATING THE ANAEROBIC DEGRADATION OF THE 3-RING POLYCYCLIC AROMATIC HYDROCARBON PHENANTHRENE N. Samak, I. Kaplieva, I. Kraiselburd and <u>Rainer Meckenstock</u></p> <p>University of Duisburg-Essen, Environmental Microbiology and Biotechnology, Essen, Germany</p>
<p>FLASH ORAL PRESENTATIONS:</p>	
ID 21	<p>DEGRADATION OF PESTICIDES BY SELECTED BACTERIAL ISOLATES <u>Petra Lovecka</u>¹, B. Vrchotova¹, J. Volkova² and K. Demnerova¹</p> <p>¹Dept of Biochemistry and Microbiology, Univ. of Chemical Technology Prague, Prague, Czech Republic ²MONAS Technology, Czech Republic</p>
ID 32	<p>PHARMACEUTICALS IN THE IS THE LARGEST CENTRAL EUROPEAN SHALLOW LAKE: BIODEGRADATION POTENTIAL OF THE INDIGENOUS MICROBES <u>Milán Farkas</u>, P. Harkai, M. Awode Funmilayo, T. Benedek, J. Háhn, G. Tóth, A. Tánicsics, B. Kriszt and S. Szoboszlay</p> <p>Institute of Aquaculture and Environmental Safety, Hungarian University of Agriculture and Life Sciences.</p>
ID 150	<p>ANAEROBIC BIODEGRADATION OF PFAS IN A CONTAMINATED GROUNDWATER INCUBATED UNDER DIFFERENT TERMINAL ELECTRON ACCEPTING PROCESSES Francesca Bruni¹, Andrea Negroni¹, Patrizia Pretto², Carla Indorato³, Elena Biagi¹, Fabio Fava¹ and <u>Giulio Zanaroli</u>¹</p> <p>¹Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, Univ. of Bologna, Italy ² AIPU Associazione Internazionale Progetti Unesco, Italy ³ Acque Veronesi s.c.a r.l., Italy</p>
ID 178	<p>OCHROBACTRUM PITUITOSUM STRAIN BU72, A NEW HYDROCARBONCLASTIC BACTERIUM THROUGH EXOPOLYSACCHARIDE-BASED SURFACTANTS PRODUCTION M. Mahjoubi¹, H. Chouchane¹, H. Aliyu², Y. Souissi³, S. Cappello⁴, F. Mapelli⁵, S. Borin⁵, D. A. Cowan⁶, <u>Ameur Cherif</u>^{1*}</p>

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²Institute of Process Engineering in Life Science 2: Technical Biology, Karlsruhe Institute of Technology, Karlsruhe, Germany.

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⁵DeFENS- University of Milan via Celoria 2, 20133 Milan, Italy

⁶Centre for Microbial Ecology and Genomics, University of Pretoria, Pretoria, South Africa

ID 184

NOVEL NONYLPHENOL-DEGRADING BACTERIAL STRAIN ISOLATED FROM SEWAGE SLUDGE FOR ITS BIOREMEDIATION

Esmeralda Morillo¹, I. Aguilar-Romero¹, A. Lara-Moreno^{1,2}, F. Madrid¹, J. Villaverde¹

¹Institute of Natural Resources and Agrobiology of Seville (IRNAS), CSIC, Seville, Spain

²Dept of Microbiology and Parasitology, Faculty of Pharmacy, University of Seville, Seville, Spain

ID 186

ACETAMINOPHEN BIODEGRADATION BY BACTERIAL STRAINS ISOLATED FROM ENRICHMENT CULTURES OF SEWAGE SLUDGE

A. Vargas-Ordóñez, I. Aguilar-Romero, Esmeralda Morillo and J. Villaverde

Institute of Natural Resources and Agrobiology of Seville (IRNAS), CSIC, Seville, Spain

TUESDAY, JUNE 14TH, 2022

8:30 - 9:15

PLENARY LECTURE #3 – ROOM A
Chairpersons: Nicolas Kalogerakis & Fabio Fava

ID 188

TERMINUS PROJECT: PAVING THE WAY FOR CIRCULAR AND RECYCLABLE PLASTIC MULTILAYERS

Dr Vincent Verney

Recycle-Consulting / CNRS / Sigma Clermont / Clermont Auvergne University

9:15 - 10:45

SESSION - 4A: Plastics & MPs: fragmentation, monitoring, biodegradation, fate, recycling - I – ROOM A

Chairpersons: Edoardo Puglisi and TBA

ID 194
(Keynote)

NOVEL TALES FOR ANCIENT CONTAMINANTS: IMPACTS AND FATES OF PLASTICS IN TERRESTRIAL ENVIRONMENTS

Edoardo Puglisi

Faculty of Agricultural, Food & Environmental Sciences, Università Cattolica del Sacro Cuore, Italy

ID 153

FATE OF BIOPLASTICS IN AGRICULTURAL SOILS

Evdokia Syranidou, A. Fountoulakis, E. Chroni, K. Karkanorachaki and N. Kalogerakis

School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece

ID 92

MICROBIAL IMPACTS OF BIOPLASTICS' ITEMS TREATED WITH ORGANIC FRACTION OF MUNICIPAL SOLID WASTE (OFMSW)

Francesca Bandini, F. Vaccari, E. Taskin, C. Misci, G. Bellotti, P. S. Cocconcelli and E. Puglisi

Dipartimento di Scienze e Tecnologie Alimentari per la sostenibilità della filiera agro-alimentare, Università Cattolica del Sacro Cuore, Piacenza, Italy

ID 159

TOXICOLOGICAL EFFECTS OF ENVIRONMENTAL MICROPLASTIC CAN MODIFY GUT MICROBIOTA HOMEOSTASIS AND METABOLOME PROFILE IN MARINE POLYCAETE

O. Missawi¹, Filippo Vaccari², B. Miras-Moreno³, I. Boughattas⁴, F. Bandini², N. Bousserhine⁵, S. Belbekhouche⁶, L. Lucini³, E. Puglisi², M. Banni^{1,7}

¹ Lab of Agrobiodiversity and Ecotoxicology, Higher Inst. of Agronomy, Univ. of Sousse, Sousse, Tunisia

² Dip di Scienze e Tecnologie Alimentari per la sostenibilità della filiera agro-alimentare, Università Cattolica del Sacro Cuore, Piacenza, Italy

³ Dept for Sustainable Food Process, Università Cattolica del Sacro Cuore, Piacenza, Italy

⁴ Regional Field Crops Research Center of Beja, Tunisia

⁵ Laboratory of Water, Environment and Urban Systems, Faculty of Science and Technology, University Paris-Est Creteil, Creteil Cedex, France

⁶ CNRS, Institute of Chemistry and Materials Paris-Est ICMPE, Thiais, France

⁷ Higher Institute of Biotechnology Monastir, University of Monastir, Monastir, Tunisia

ID 115

THE IMPACT OF THERMAL PRETREATMENT AND ANAEROBIC DIGESTION ON THE DEGRADATION OF BIOPLASTIC BAG MIXED WITH FOOD WASTE

Agata Gallipoli¹, C. Pastore², G. Gazzola¹, A. Gianico¹, B. Tonanzi¹, C. M. Braguglia¹

¹ Water Research Institute (IRSA-CNR), Monterotondo, Rome, Italy

² Water Research Institute (IRSA-CNR), Bari, Italy

ID 05

FLASH ORAL PRESENTATIONS:
THE POTENTIAL FOR PHYTOREMEDIATION OF MICROPLASTICS WITH AQUATIC MACROPHYTE LEMNA MINOR

Ula Rozman and G. Kalčíková

University of Ljubljana, Faculty of Chemistry and Chemical Technology, Ljubljana, Slovenia

ID 31

EVALUATION OF MP ECOTOXICITY AND TRANSFER IN *SPIRODELA-ECHINOGAMMARUS* TROPHIC SYSTEM

V. Iannilli¹, F. Lecce¹, G. Sciacca¹, F. Pietrini², Laura Passatore², S. Carloni² and M. Zacchini²

¹ ENEA, Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, Dip. Sostenibilità dei Sistemi Produttivi e Territoriali, Roma, Italy

² Istituto di Ricerca sugli Ecosistemi Terrestri (IRET), Consiglio Nazionale delle Ricerche (CNR), Monterotondo Scalo, Roma, Italy

ID 68

FUNGAL COMMUNITY SUCCESSION OF THE SOUTH-EASTERN MEDITERRANEAN PLASTISPHERE

Katerina Karkanorachaki, E. Syranidou and N. Kalogerakis

9:15 - 10:45 SESSION – 4B: Microalgae – ROOM B

Chairpersons: TBA

- ID 157** **INTEGRATING MICROBIAL BIOMASS, COMPOSITION AND FUNCTION TO DISCERN THE LEVEL OF ANTHROPOGENIC ACTIVITY IN A RIVER ECOSYSTEM**
Georgios Makaroglou, R. Kompogennitaki, E. Tsantopoulou, P. Gikas and N. Kalogerakis
School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece
- ID 20** **DEVELOPMENT OF A BIOENERGETIC STRATEGY FOR THE BIOREMEDIATION OF CHEESE WHEY BY GREEN MICROALGAE**
Napoleon-Christoforos Stratigakis¹, T. Nazos¹, M. Chatzopoulou¹, A. Lagouvardou-Spantidaki², M. Spantidaki² and D. Ghanotakis¹
¹Dept of Chemistry, University of Crete, Vasilika Voutes, Heraklion, Crete, Greece
²Chemicotechniki Laboratories, Rethymno, Crete, Greece
- ID 53** **GREEN SOLUTIONS FOR TREATING GROUNDWATER POLLUTION TO MEET DRINKING WATER DIRECTIVE STANDARDS**
M. Escolà¹, J. M. Bayona¹, M. Guivernau², M. Viñas², R. Trobajo², B. Fernández², C. Biel², C. Bosch³, F. Duong⁴, K. Berger⁴, A. Fabregas⁵, J.C. Real⁵, E. Zuriaga⁶, R. García⁶, J. Garcia⁶ and Víctor Matamoros¹
¹ IDAEA, Department of Environmental Chemistry, IDAEA-CSIC, Barcelona, Spain.
² IRTA, Institute for Food and Agricultural Research and Technology, Spain
³ EURECAT, Centre Tecnològic de Catalunya, Manresa, Spain
⁴ NENUPHAR, Biotechnology engineering start-up – France
⁵ PROTECMED-Procesos Técnicos Medioambientales, Castellar del Vallès, Spain
⁶ FACSA, SOCIEDAD DE FOMENTO AGRICOLA CASTELLONENSE S.A., Castelló de la Plana, Spain.
- ID 77** **HIGH VALUE SOLIDS RECOVERY ALONG WITH BIOCRUDE FROM HYDROTHERMAL LIQUEFACTION OF WASTEWATER GROWN ALGAE: A SUSTAINABLE WASTE BIOREFINERY**
Farah Naaz¹, A. Bhattacharya¹, A. Malik¹, K. Kishore Pant²
¹Applied Microbiology Lab, Centre for Rural Development and Technology, IIT Delhi, Delhi, India
²Catalytic Reaction Engineering Lab, Dept of Chemical Engineering, IIT Delhi, Delhi, India
- ID 156** **BIOTECHNOLOGICAL POTENTIAL OF MICROALGAE**
Giovanna Romano, V. Di Dato, F. Di Costanzo and I. Orefice
Stazione Zoologica Anton Dohrn
- ID 62** **BIOREMEDIATION OF DAIRY COW MANURE: MICROALGAE SELECTION AND NUTRIENT RECOVERY**
G. D'Ambrosio, S. G. Di Rauso, M. Antonietta Rao, P. Chiaiese and Edgardo Filippone
Dept of Agriculture Sciences, University of Naples Federico II, Portici, Italy

10:45 – 11:15 Coffee break & Poster Viewing (Section A)

11:15 – 13:15 SESSION - 5A: Plastics & MPs: fragmentation, monitoring, biodegradation, fate, recycling - II – ROOM A

Chairpersons: Stefania Federici and TBA

- ID 193** **PRIORITY: CONNECTING COMMUNITIES WORKING ON MICRO- AND NANOPLASTICS**
Keynote
Stefania Federici
Chem-Bio-Nano Division, Department of Mechanical and Industrial Engineering, University of Brescia, Italy
- ID 34** **PLASTISPHERE ASSEMBLY DYNAMICS ON PCB-CONTAMINATED MICROPLASTICS IN ANOXIC SALT MARSH SEDIMENTS**
Elena Biagi¹, A. Rosato¹, M. Barone², A. Negroni¹, F. Fava¹, M. Candela² and G. Zanaroli¹
¹Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy
²Dept. of Pharmacy and Biotechnology – FABIT, University of Bologna, Italy
- ID 141** **BIODEGRADATION OF UNPRETREATED POLYETHYLENE FILMS BY MARINE PURE BACTERIAL ISOLATES AND ARTIFICIAL CONSORTIA**
Kejvin Bajo, R. Romano, F. Fava and N. Raddadi
Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy
- ID 164** **DEGRADATION OF BIOPLASTICS (PLA, TPS, BIO-PE AND rTPS) IN THE MARINE ENVIRONMENT**
Giorgia Barale^{1,2}, K. Karkanorachaki¹, A. Fountoulakis¹, M. Bruno², E. Syranidou¹, S. Fiore², N. Kalogerakis¹

ID 165	<p>¹ School of Chemical and Environmental Engineering, Technical University of Crete, Greece ² DIATI (Department of Engineering for Environment, Land, and Infrastructures), Politecnico di Torino, Italy NANOPLASTIC GENERATION FROM SECONDARY PE MICROPLASTICS: MICROORGANISM-INDUCED FRAGMENTATION <u>Katerina Karkanorachaki</u>¹, P. Tsiota¹, G. Dasenakis¹, E. Syranidou¹, N. Kalogerakis^{1,2}</p>
ID 161	<p>¹ School of Chemical and Environmental Engineering, Technical University of Crete, Greece ² Institute of GeoEnergy, Foundation for Research and Technology - Hellas, Chania, Greece INVESTIGATING THE DEGRADATION OF THREE BIODEGRADABLE BIOPOLYMERS BY A MARINE CONSORTIUM USING METAGENOMICS AND PROTEOMICS I.E. Meyer Cifuentes¹, N. Jehmlich², <u>Julius Degenhardt</u>¹ and B. Öztürk¹</p>
ID 169	<p>¹ Junior Research Group Microbial Biotechnology, Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures, Braunschweig, Germany ² Dept of Molecular Systems Biology, Helmholtz-Centre for Environmental Research-UFZ, Leipzig, Germany CHARACTERIZATION OF TWO NOVEL TANDEM PETASES FROM A MARINE MICROBIAL CONSORTIUM I. Meyer Cifuentes¹, L. Pfaff², R. Wei² and <u>Basak Öztürk</u>¹</p>
ID 06	<p>¹ Junior Research Group Microbial Biotechnology, Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures GmbH ² Junior Research Group Plastic Biodegradation, Department of Biotechnology and Enzyme Catalysis, Institute of Biochemistry, University of Greifswald BIOTECHNOLOGICAL PROCESSES FOR RUBBER BIODEGRADATION <u>Rodrigo Andler</u> School of Biotechnology Engineering, Catholic University of Maule, Chile</p>
ID 120	<p>FLASH ORAL PRESENTATIONS: THE EFFECT OF PVC MICROPLASTICS ON REACTIVE OXYGEN SPECIES GENERATION IN A RAINBOW TROUT CELL LINE <u>Jana Boháčková</u>^{1,2}, T. Cajthaml^{1,2}</p>
ID 168	<p>¹ Institute for Environmental Studies, Faculty of Science, Charles University, Czech Republic ² Institute of Microbiology of the Czech Academy of Sciences, Czech Republic A NOVEL VOLTAMMETRIC NANOSENSOR FOR THE DETECTION OF MICROPLASTICS IN AQUEOUS SAMPLES <u>Gregor Marolt</u>, U. Rozman and G. Kalčíkova University of Ljubljana, Faculty of Chemistry and Chemical Technology, Ljubljana, Slovenia</p>
ID 182	<p>IMPROVING THE THERMAL STABILITY OF A MARINE PETASE WITH TARGETED EVOLUTION <u>Jana Brickem</u>^{1,2} and Başak Öztürk²</p>
11:15 - 13:15	<p>SESSION - 5B: Remediation of sites with Chlorinated Hydrocarbons – ROOM B Chairpersons: Marco Petrangeli Papini and Thomas Reichenauer</p>
ID 173	<p>A COUPLED ADSORPTION-BIODEGRADATION (CAB) PROCESS EMPLOYING A POLYHYDROXY BUTYRATE (PHB)-BIOCHAR REACTOR FOR TRICHLORO-ETHYLENE CONTAMINATED GROUNDWATER BIOREMEDIATION M. M. Rossi¹; L. Lorini²; M. Mariorenzi²; R. Garcia Cervilla³; B. Matturro⁴; S. Rossetti⁴ and <u>Marco Petrangeli Papini</u>¹</p>
ID 69	<p>¹ Dept of Environmental & Health, Ramboll Italy, Rome, Italy ² Dept of Chemistry, Sapienza University, Rome, Italy ³ Dept of Chemical and Materials Engineering, Universidad Complutense Madrid, Madrid, Spain ⁴ Water Research Institute, IRSA-CNR, Monterotondo, Rome, Italy STIMULATION AND INHIBITION OF ANAEROBIC MICROBIAL DECHLORINATION BY DIFFERENT ZVI PARTICLES AND AQUIFER MATERIAL <u>Thomas G. Reichenauer</u>¹, Stefan Spindler¹, Stefanie Primisser¹, Regine Patek²</p>
ID 91	<p>¹ AIT Austrian Institute of Technology GmbH, Bioresources, Austria ² TERRA Umwelttechnik GmbH, Austria IN FIELD ACTIVITIES OF CHLORINATED ETHENE BIODEGRADATION: SPATIAL EVOLUTION OF THE CONTAMINATED PLUME MICROBIAL COMMUNITY AFTER BIOSTIMULATION <u>Martina Bertolini</u>, S. Zecchin and L. Cavalca Dip di Scienze per gli Alimenti, la Nutrizione e l'Ambiente (DeFENS), Università degli Studi di Milano, Italy</p>

ID 60	<p>MECHANISM AND KINETICS OF REDUCTIVE DECHLORINATION OF HEXACHLORO-BUTADIENE AND HEXACHLOROETHANE BY BIMETALLIC Pd/Fe MICROPARTICLES USING AN INDIRECT AND CONTINUOUS MONITORING OF IRON CORROSION</p> <p>R. Rodrigues^{1,2*}, S. Betelu¹, S. Colombano², T. Tzedakis² and <u>Ioannis Ignatiadis¹</u></p> <p>¹BRGM, French Geological Survey, Orléans Cedex 2, France ²LGC, University Paul Sabatier of Toulouse UT3, Toulouse Cedex 9, France</p>
ID 122	<p>1,2-DICHLOROETHANE CONTAMINATED AQUIFER: MICROBIAL COMMUNITY RESPONSE TO BIOSTIMULATION IN MICROCOSM</p> <p>I. Cruciata¹, L. Scirè Calabrisotto¹, E.M. Petta¹, D. Marino¹, G. Carpani², A. Pace¹ and <u>Paola Quatrini¹</u></p> <p>¹Dept of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), Univ. of Palermo, Palermo, Italy ²Environmental and Biological Laboratories (EPLAB-TEAMB), Eni S.p.A., 20097 S. Donato Milanese, Italy</p>
ID 123	<p>AEROBIC 1,2-DICHLOROETHANE DEGRADERS IN CONTAMINATED GROUNDWATER</p> <p><u>Laura Scirè Calabrisotto¹</u>, I. Cruciata¹, M. Auteri¹, A. Pace¹, G. Carpani² and P. Quatrini¹</p> <p>¹Dept of Biological, Chemical and Pharmaceutical Sciences and Technologies (STEBICEF), Univ. of Palermo, Palermo, Italy ²Environmental and Biological Laboratories (EPLAB-TEAMB), Eni S.p.A., 20097 S. Donato Milanese, Italy</p>
ID 142	<p>QUANTIFICATION OF THE EFFICIENCY OF FREE PRODUCT RECOVERY OF HEAVY CHLORINATED COMPOUNDS USING CHEMICAL AND THERMAL ENHANCEMENTS WITH PERMITTIVITY, RESISTIVITY AND OPTICAL DENSITY MEASUREMENTS</p> <p>S. Colombano¹, H. Davarzani¹, E.D. van Hullebusch^{2,3}, D. Huguenot², D. Guyonnet¹, J. Deparis¹, F. Lion¹, <u>Ioannis Ignatiadis¹</u></p> <p>¹BRGM, French Geological Survey, Water, Environment, Process Development and Analysis Division, Orléans cedex 2, France ²Université Université Gustave Eiffel, Laboratoire Géomatériaux et Environnement (LGE), EA4508, UPEM, Marne-la-Vallée, France ³Institut de Physique du Globe de Paris, Université Paris Cité, UMR 7154, CNRS, Paris, France</p>
ID 23	<p>FULL-SCALE APPLICATION IN ITALY OF A COMBINED ISCR AND ERD TECHNOLOGY FOR THE TREATMENT OF AN AQUIFER IMPACTED WITH TETRACHLOROMETHANE AND CHLOROFORM</p> <p><u>Alberto Leombruni</u>, Michael Mueller Evonik Active Oxygens, LLC, United States</p>
ID 117	<p>FLASH ORAL PRESENTATIONS:</p> <p>NANOBIOREMEDIATION OF HEXACHLOROCYCLOHEXANES</p> <p><u>Jaroslav Semerád^{1,2}</u>, Ondřej Lhotský^{2,3}, and Tomáš Cajthaml³</p> <p>¹Institute of Microbiology of the Czech Academy of Sciences, Prague, Czech Republic ²Institute for Environmental Studies, Faculty of Science, Charles University, Prague, Czech Republic ³Dekonta As, Dřetovice 109, Stehelčevce, Czech Republic</p>

13:15 - 14:15 LUNCH (Minoa Palace Hotel)

14:15 - 17:00 FREE TIME (Posters change time A to B)

17:00 - 18:30 SESSION - 6A: H2020-TERMINUS Conference – II (ROOM A)

Chairpersons: Vincent Verney and TBA

ID 43	<p>ENZYMATIC DEGRADATION OF THE MOST COMMON ALIPHATIC BIOPOLYESTERS</p> <p>A. Rosato, A. Romano, G. Totaro, A. Celli, F. Fava, L. Sisti, <u>Giulio Zanaroli</u> Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy</p>
ID 105	<p>RECYCLING OF NON-FIBRE FRACTION OF CARTON PACKAGES</p> <p><u>Åsa Olsson</u> Tetra Pak Packaging Solutions AB, Lund, Sweden</p>
ID 111	<p>THE POWER OF NADES - BOOSTING ENZYME STABILITY TOWARDS THERMAL DEGRADATION</p>

Simona Varriale¹, Astrid E. Delorme², Jean-Michel Andanson², Julien Devemy², Patrice Malfreyt², Vincent Verney², and Cinzia Pezzella^{1,3}

¹ Biopox srl, Viale Maria Bakunin 12, Naples, 80125, Italy

² Université Clermont Auvergne, CNRS, SIGMA Clermont, ICCF, F-63000 Clermont-Ferrand, France

³ Department of Agricultural Sciences, University of Naples "Federico II", Naples, Italy

ID 119

ADDITIVE EFFECTS ON CURING ESTER-BASED DEGRADABLE POLYURETHANE ADHESIVES

S. Mačiulytė, P. Nemaniūtė, D. Bražinskienė, O. Eicher-Lorka, S. Joseph Asadauskas

Dept. of Chemical Eng. and Technologies, Center for Physical Sciences and Technology (FTMC), Lithuania

ID 135

COMPLEXITY OF MULTILAYERS, MAIN CHALLENGES AND SOLUTIONS TO REACH THE REALITY OF A SUSTAINABLE INDUSTRIAL PROCESSES, AN SMES POINT OF VIEW

Alexandre Fontaine

STTP Emballage, Sainte-Sigolène, France

ID 137

RHEOLOGICAL IMPLICATIONS OF FUNCTIONAL NANOCHARGES IN POLYURETHANE-BASED ADHESIVES AND THEIR LAMINATION PROCESS

M. Ngom, C. Chevalier, S. Mani, Rigoberto Ibarra-Gómez

Centre Industriel de la Plasturgie et des Composites (IPC), France

ID 144

NANOBIOCATALYTIC DEGRADATION OF DESIGNER POLYURETHANES

Patrick Shahgaldian¹, S. Amirabbas Nazemi¹, C. Wu¹, R. Burn², C. Pezzella^{3,4}, S. Varriale^{3,4} and P. F.-X. Corvini²

¹Institute of Chemistry and Bioanalytics, School of Life Sciences, FHNW, Switzerland

²Institute of Ecopreneurship, School of Life Sciences, FHNW, Switzerland

³ Biopox, Naples, Italy ⁴ Dept of Agricultural Sciences, University of Naples "Federico II", Portici, Italy

17:00 - 18:30

SESSION – 6B: Phytoremediation of heavy metals - I (ROOM A)

Chairpersons: Michel Menchen and TBA

ID 28

PHYTOMANAGEMENT OF METAL(LOID)-CONTAMINATED SOILS: ORGANIC AMENDMENTS AND SI/SE BIOFORTIFICATION TO PROMOTE BIOMASS PRODUCTION AND SOIL REMEDIATION

Michel Mench¹, J. Bobrikova¹, E. Clément¹, L. Marchand², N. Oustrière³, E. Paidjan¹, S. Beaujean¹, B. Rutkowska⁴, R. Segura¹, W. Szulc⁴, Y. Token¹

¹ INRAE, BIOGECO, University of Bordeaux, Pessac, France

² Suez, LyRE, Pessac, France

³ Junia – Yncrea, Lille, France

⁴ Warsaw University of Life Sciences, Warsaw, Poland

ID 171

BIOAUGMENTED PHYTOEXTRACTION OF COPPER WITH THE USE OF BIOSTIMULANT AND PLANT GROWTH PROMOTHING RHIZOBACTERIA

Gabriele Bellotti¹, F. Andrea², F. Capra², M.C. Guerrieri¹, E. Taskin¹, G. Antonio³, F. Ghilardelli³, F. Bandini¹, C. Misci¹, F. Vaccari¹, M. Manica⁴, P. Vida⁴, G. De Maio⁵, P.S. Cocconcelli¹, E. Puglisi¹

¹ Dept for Sustainable Food Process (DiSTAS), Faculty of Agriculture, Food and Environmental Sciences, Università Cattolica del Sacro Cuore, Piacenza, Italy

² Dept of Sustainable Crop Production (DI.PRO.VE.S.), Faculty of Agriculture, Food and Environmental Sciences, Università Cattolica del Sacro Cuore, Piacenza, Italy

³ Dept of Animal Science, Food and Nutrition (DIANA), Faculty of Agriculture, Food and Environmental Sciences, Università Cattolica del Sacro Cuore, Piacenza, Italy

⁴ Manica S.p.a. Via Adige, 4, 38068 Rovereto TN.

⁵ Natural Technologies Italia S.r.l., Casalmaggiore (CR), Italy.

ID 13

ELECTROKINETIC ASSISTED (AC AND DC) PHYTOREMEDIATION OF HIGHLY POLLUTED MULTI-METAL MINE TAILINGS USING *LOLIUM PERENNE*

Hassay Lizeth Medina-Díaz¹, F.J. López-Bellido¹, J. Alonso-Azcárate², F.J. Fernández-Morales¹, J. Villaseñor¹, L. Rodríguez¹

¹ Dept. of Chemical Engineering, University of Castilla-La Mancha, Ciudad Real, España

² Dept. of Physical Chemistry, University of Castilla-La Mancha, Toledo, España

ID 110

ADVANCED DRINKING GROUNDWATER AS PHYTOFILTRATION BY THE HYPERACCUMULATING FERN *PTERIS VITTATA*

D. Marzi¹, M.L. Antenzio¹, S. Vernazzaro¹, C. Sette², E. Veschetti², L. Lucentini², G. Daniele³, Patrizia Brunetti¹ and M. Cardarelli¹

¹ IBPM-CNR, c/o Dipartimento di Biologia e Biotecnologie, Sapienza Università di Roma, Roma, Italy

² Water Quality and Health Unit, Dept Environmental and Health, Italian Nat. Inst. of Health, Roma, Italy

³ Egato1-Vt Ente di Governo Dell'A.T.O. N° 1 Lazio Nord—Viterbo c/o Provincia di, Viterbo, Italy

ID 151	<p>ARSENIC ACCUMULATION AND DISTRIBUTION IN <i>PTERIS VITTATA</i> PLANTLETS AND DYNAMICS OF ARSENIC-RELATED GENE EXPRESSION M.L. Antenzio¹, G. Capobianco², S. Serranti², G. Bonifazi², P. Brunetti¹ and <u>Maura Cardarelli¹</u> ¹ IBPM-CNR, c/o Dipartimento di Biologia e Biotecnologie, Sapienza Università di Roma, Roma, Italy ² Dipartimento di Ingegneria Chimica Materiali Ambiente, La Sapienza - Università di Roma, Rome, Italy</p> <p>FLASH ORAL PRESENTATIONS:</p>
ID 48	<p>EFFECT OF MULTICONTAMINATED SOIL ON WATER RELATIONS OF <i>PTERIS CRETICA</i> <u>Marie Lhotska¹</u>, V. Zemanova², F. Hnilička¹ and D. Pavlikova² ¹ Dept of Botany and Plant Physiology, Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences Prague, Czech Republic ² Dept of Agroenvironmental Chemistry and Plant Nutrition, Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences Prague, Czech Republic</p>
ID 52	<p>OPTIMIZING PHYTOMANAGEMENT STRATEGIES FOR A METAL (Cd, Pb, Zn, and Cu)-CONTAMINATED SOIL TO PROVIDE BIOMASS FOR CLEAN BIOFUEL PRODUCTION – PROGRESS FROM POT TRIAL Ofori-Agyemang Felix¹, Waterlot Christophe¹, <u>Michel Mench²</u>, Oustrière Nadège¹ ¹ Univ. Lille, Institut Mines-Télécom, Univ. Artois, JUNIA, Laboratoire de Génie Civil et géo-Environnement, Lille, France ² Univ. Bordeaux, INRAE, UMR BIOGECO INRAE, F-33615 Pessac cedex, France</p>
ID 64	<p>EXTRACTION OF AMMONIUM NICKEL SULFATE HEXAHYDRATE BY HYDROMETALLURGICAL PROCESS FROM THE HYPERACCUMULATING PLANT <i>ODONTARRHENA CHALCIDICA</i> – CASE STUDY FROM BULGARIA Violina Angelova Agricultural University of Plovdiv, Bulgaria</p>

18:30 - 19:00 Coffee break & Poster Viewing

19:00 - 19:45 SESSION – 7A-I: Toxicity & Risk – ROOM A
Chairpersons: Dane Venieri and Anna Wyrwicka-Drewniak

ID 30	<p>BISMUTH EXPOSURE IN PLANTS: AN ECOTOXICOLOGICAL AND GENOTOXIC STUDY IN A MULTI-SCALE EXPERIMENTAL APPROACH F. Pietrini¹, L. Passatore¹, S. Carloni¹, L. Massimi², C. Giusto^{1,2}, V. Iannilli³ and <u>Massimo Zacchini¹</u> ¹ Istituto di Ricerca sugli Ecosistemi Terrestri, Consiglio Nazionale delle Ricerche (CNR), Rome, Italy ² Dept of Environmental Biology, Sapienza University of Rome, Rome, Italy ³ ENEA, Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile, Dip. Sostenibilità dei Sistemi Produttivi e Territoriali, Rome, Italy</p>
ID 97	<p>WASTEWATER TREATMENT DURING COVID-19 PANDEMIC. DEFINING REAL WASTEWATER RISKS. P. Kokkinos¹, D. Venieri² and <u>Dionissios Mantzavinos¹</u> ¹ Dept of Chemical Engineering, University of Patras, University Campus, Patras, Greece ² School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece</p> <p>FLASH ORAL PRESENTATIONS:</p>
ID 56	<p>ARSENIC POLLUTION AND HUMAN HEALTH RISK ASSESSMENT IN THE REGION OF RACHA-LECHKHUMI AND KVEMO SVANETI OF GEORGIA V. Tebidze¹, <u>Elene Zurabishvili¹</u>, G. Tatanashvili¹, T. Varazi¹, E. Bunin² and E. Bakradze³ ¹ East European University, Tbilisi, Georgia ² Dept of Immunology, Microbiology and Parasitology, Univ. of the Basque Country, Leioa, Spain ³ LEPL Environmental Pollution Monitoring Dept, The National Environmental Agency, Tbilisi, Georgia</p>
ID 147	<p>EFFECT OF SELECTED TRICHODERMA STRAINS ON WHEAT SEEDLINGS GROWN IN CADMIUM-CONTAMINATED SOIL <u>Patrycja Kopa¹</u>, M. Szczech², A. Witusińska¹, A. Wyrwicka-Drewniak¹ and E. Gajewska¹ ¹ Dept of Plant Physiology and Biochemistry, University of Lodz, Poland ² Dept of Microbiology and Rhizosphere, Institute of Horticulture - NRI, Skierniewice, Poland</p>
ID 174	<p>PERFORMANCE OF THREE BIOMIMETIC STATIONARY PHASES FOR THE PREDICTION OF AQUATIC TOXICITY OF PHARMACEUTICALS C. Stergiopoulos, L.-A. Tsakanika, E. Notari, F. Katsaras, M. Ochsenkühn-Petropoulou and <u>Fotios Tsopelas</u></p>

ID 58	School of Chemical Engineering, National Technical University of Athens, Greece EFFECT OF STUDENT ATTENDANCE ON AIRBORNE MICROBIAL CHARACTERISTICS IN EDUCATIONAL FACILITIES <u>V. Bofili, L. Raisi and Eleftheria Katsivela</u> Department of Electronic Engineering, Hellenic Mediterranean University, Chania, Greece
19:45 - 20:30 SESSION -7A-II: Wastewater treatment – ROOM B Chairpersons: TBA	
ID 03	BIOPURIFICATION SYSTEMS: RECENT ADVANCES ON PESTICIDE REMOVAL AND ALTERNATIVE APPLICATIONS <u>Carlos E. Rodríguez-Rodríguez, M. Masís-Mora, M. Pérez-Villanueva, A. Huete-Soto, and A. Acosta-Sánchez</u> Research Center of Environmental Contamination (CICA), Universidad de Costa Rica, Costa Rica
ID 76	ANTIFOULING MEMBRANES FOR BIOLOGICAL WASTEWATER TREATMENT BASED ON 2D PLANAR NANOBIOCATALYST OF CROSSLINKED GLUCOSE OXIDASE AGGREGATES WRAPPING EXTRA-LARGE GRAPHENE OXIDE <u>Jungbae Kim¹, Testaverde S. Kim¹, Jahyun Nam¹, Kyung-Min Yeon²</u> ¹ Department of Chemical and Biological Engineering, Korea University, Republic of Korea ² Samsung C&T Corporation, Republic of Korea
FLASH ORAL PRESENTATIONS:	
ID 175	TREATMENT OF HOSPITAL WASTEWATER: EMPHASIS ON ECOTOXICITY AND ANTIBIOTIC RESISTANCE GENES <u>Andreas Kaliakatsos¹, Th. Manios², A.S. Stasinakis³, N. Katsarakis⁴, M. Fountoulakis³, S. Dokianakis⁴, N. Kalogerakis¹, I. Gounaki¹, D. Venieri¹</u> ¹ School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece. ² Department of Agriculture, Hellenic Mediterranean University, Heraklion, Greece. ³ Department of Environment, University of the Aegean, Mytilene, Greece. ⁴ Center of Materials Technology and Photonics, Hellenic Mediterranean University, Heraklion, Greece
19:00 - 20:00 SESSION -7B-I: Phytoremediation of heavy metals - II – ROOM B Chairpersons: TBA	
ID 113	TOLERANCE CAPACITY OF SELECTED MACROPHYTES AGAINST MULTIMETAL CONTAMINATED GROUNDWATER <u>Aqib Hassan Ali Khan¹, B. Velasco Arroyo¹, C. Rad², S. Curiel-Alegre^{1,2}, A. Martínez², S. Martel¹, and R. Barros¹</u> ¹ International Research Center in Critical Raw Materials for Advanced Industrial Technologies (ICCRAM). University of Burgos, Burgos, Spain. ² Research Group in Composting (UBUCOMP). University of Burgos, Faculty of Sciences, Burgos Spain.
ID 63	CHARACTERISATION OF BULGARIAN SERPENTINE SOILS AND NI ACCUMULATION BY ODONTARRHENA CHALCIDICA <u>Violina Angelova</u> Agricultural University-Plovdiv, Bulgaria
ID 176	RARE EARTH ELEMENTS IN THE ENVIRONMENT AND WASTE AND POTENTIAL FOR THEIR PHYTOMINING <u>Grzegorz Siebielec¹, S. Siebielec², D. Gmur¹</u> ¹ Dept. of Soil Science Erosion & Land Protection, Inst. of Soil Science and Plant Cultivation, Pulawy, Poland ² Dept. of Agricultural Microbiology, Institute of Soil Science and Plant Cultivation, Pulawy, Poland
ID 02	EVALUATION OF THE PHYTOREMEDIATION OF CHROMIUM AND LEAD USING TWO COMMON LEGUMES: BEANS (<i>VIGNA UNGUICULATA</i>) AND GROUNDNUT (<i>ARACHIS HYPOGAEA</i>) <u>Anyadoh-Nwadike, Sylvia O., Onwuka Judith, Onu, Onyinyechi S. and Ahumibe Nkenna</u> ¹ Dept of Biotechnology, School of Biological Sciences, Federal University of Technology, Owerri, Nigeria ² Dept of Science Laboratory Technology, School of Physical Sciences, Federal University of Technology, Owerri, Nigeria
20:00 - 20:30 SESSION -7B-II: PAHs contaminated sites – ROOM B Chairpersons: TBA	
ID 158	RISK ASSESSMENT OF PRIORITY PAHS POLLUTANTS IN CRUDE OIL CONTAMINATED SOIL AND ITS IMPACTS ON SOIL BIOLOGICAL PROPERTIES <u>Hemen Deka</u> Ecology and Environmental Remediation Laboratory, Dept of Botany, Gauhati University, Assam, India

- ID 40** **ANTHRAQUINONE REMOVAL FROM PAH-CONTAMINATED SOILS REQUIRES BACTERIAL SPECIFIC POPULATIONS AND MECHANISMS**
S.N. Jiménez-Volkerink¹, María Jordán¹, C. Minguillón², S. Shetty³, H. Smidt³, J. Vila¹ and M. Grifoll¹
¹ Dept. of Genetics, Microbiology and Statistics, Faculty of Biology, University of Barcelona, Spain.
² Dept. of Pharmacology and Therapeutic Chemistry, University of Barcelona, Barcelona, Spain
³ Laboratory of Microbiology, Wageningen University & Research, Wageningen, The Netherlands
FLASH ORAL PRESENTATIONS:
- ID 39** **BACTERIAL BENZO(a)ANTHRACENE DEGRADATION PROCESSES IN SOIL ARE INFLUENCED BY OTHER HMW-PAHS AS CO-SUBSTRATES**
María Jordán, S.N. Jiménez-Volkerink, P. Martín, M. Grifoll and J. Vila
Dept. of Genetics, Microbiology and Statistics, Faculty of Biology, University of Barcelona, Spain.
- ID 185** **STUDY OF PHENANTHRENE MINERALIZATION IN SOILS ASSISTED BY BIOAUGMENTATION, BIOSTIMULATION AND CYCLODEXTRIN**
Alba Lara-Moreno^{1,2}, Esmeralda Morillo¹, Jaime Villaverde¹
¹ Dept of Agrochemistry, Environmental Microbiology and Soil Conservation, Institute of Natural Resources and Agrobiology of Seville, (IRNAS) CSIC, Seville, Spain
² Dept of Microbiology and Parasitology, Faculty of Pharmacy, University of Seville, Seville, Spain
- ID 163** **BIO-BASED NANOMATERIALS ASSISTED BACTERIAL CONSORTIA FOR REMEDIATION OF LMW-PAHS**
Paramita Chakravarty
Ecology and Environmental Remediation Lab, Dept of Botany, Gauhati University, Assam, India

WEDNESDAY, JUNE 15TH, 2022

9:15- 10:45 SESSION – 8A: Valorization – I – ROOM A
Chairpersons: Roberto De Philippis and TBA

- ID 195** **BIORECOVERY OF HEAVY METALS FROM WASTE WATERS AND THEIR VALORIZATION AS BIOCATALYSTS**
Keynote
Roberto De Philippis¹, A. Adessi¹, L. Cavalca², S. Zecchin², S. Mazzini², G. Borgonovo², I. Rimoldi³, R. Gandolfi³
¹ Dept of Agriculture, Food, Environment and Forestry (DAGRI) University of Florence, Italy
² Dept. of Food, Environmental and Nutritional Sciences (DeFENS), University of Milan, Italy
³ Dept. of Pharmaceutical Sciences (DISFARM), University of Milan, Italy
- ID 67** **COLLECTION, SELECTION AND UPSCALING OF NATURAL CYANOBACTERIA MICROBIOMES FOR POLYHYDROXYALKANOATES AND EXOPOLYSACCHARIDES PRODUCTION**
B. Altamira-Algarra, E. González-Flo and Joan García
GEMMA-Group of Environmental Engineering and Microbiology, Dept of Civil and Environmental Engineering, Universitat Politècnica de Catalunya-BarcelonaTech, Barcelona, Spain.
- ID 19** **VALORIZATION OF CHEESE WHEY WASTEWATERS BY *CHLORELLA SP.* AND PRODUCTION OF HIGH-NUTRITIONAL VALUE BIOMASS**
Theocharis Nazos¹, N.- C. Stratigakis¹, N. Barka¹, A. Lagouvardou-Spantidaki², M. Spantidaki² and D. Ghanotakis¹
¹ Department of Chemistry, University of Crete, Heraklion, Greece
² Chemicotechniki Laboratories, Rethymno, Crete, Greece
- ID 46** **RECOVERY OF SPOIL MATERIAL TREATED WITH LIME APPLYING ORGANIC AMENDMENTS AND M. SATIVA**
G. Luigi Garbini^{1,2}, Anna Barra Caracciolo¹, L. Rolando¹, A. Visca¹, V. Terenzi¹, A. Finizio³, V. Mazzurco-Miritana⁴, I. Nogues⁴, P. Grenni¹
¹ Water Research Institute, National Research Council (IRSA-CNR), Montelibretti, Rome, Italy
² Dept of Ecology and Biological Sciences, Tuscia University, Viterbo, Italy
³ Dept of Earth and Environmental Sciences, University of Milano-Bicocca, Milano, Italy
⁴ Research Institute on Terrestrial Ecosystems, National Research Council (IRET-CNR), Rome, Italy
- ID 65** **CONVERSION OF TEXTILE WASTE INTO BIOETHANOL: STATISTICAL OPTIMIZATION OF THE FERMENTATION PROCESS IN BIOREACTOR**
Ahmed Mansy¹, T. Taha², M. Abu-Saied², H. El-Gendi⁴, E. El Desouky⁵, R. Amer²
¹ Environment and Natural Materials Research Institute (ENMRI), SRTA-CITY, Alexandria, Egypt.
² Genetic Engineering and Biotechnology Research Institute (GEBRI), SRTA-CITY, Alexandria, Egypt.
³ Advanced Technology and New Materials Research Institute, SRTA-CITY, Alexandria, Egypt.
⁴ Genetic Engineering and Biotechnology Research Institute (GEBRI), SRTA-CITY, Alexandria, Egypt.
⁵ Chemistry department, Faculty of science, Alexandria University, Egypt.
- FLASH ORAL PRESENTATIONS:**
- ID 07** **INTEGRAL VALORIZATION OF AGRICULTURAL WASTE BY HYDROTHERMAL CO-CARBONIZATION**
R.P. Ipiiales^{1,2}, E. Diaz¹, E. Diaz-Portuondo², A.F. Mohedano¹, M.A. de la Rubia¹
¹ Chemical Engineering Department, Universidad Autónoma de Madrid, Madrid, Spain
² Arquimea-Agrotech, 28400 Collado Villalba – Madrid, Spain
- ID 09** **IMPROVEMENT OF HYDROCHAR PROPERTIES BY ACID-ASSISTED HYDROTHERMAL CARBONIZATION**
A.F. Mohedano, A. Sarrion, R.P. Ipiiales, M.A. de la Rubia, E. Diaz
Dept of Chemical Engineering, Faculty of Science, Universidad Autonoma de Madrid, Madrid, Spain
- ID 62** **BIOREMEDIATION OF DAIRY COW MANURE: MICROALGAE SELECTION AND NUTRIENT RECOVERY**
G. D'Ambrosio, S.G. Di Rauso, M.A. Rao, P. Chiaiese, Edgardo Filippone
Department of Agriculture Sciences, University of Naples Federico II, Portici, Italy

09:15 - 10:45 SESSION – 8B: Sites Contaminated with Recalcitrant Chemical Compounds – ROOM B
Chairpersons: Hermann J. Heipieper and TBA

- ID 12** **REVEALING MICROAEROBIC DEGRADATION OF XYLENE AT A DECADE-OLD CONTAMINATED SITE: A MULTI-OMICS APPROACH**

András Táncics¹, S. Banerjee¹, A. Rodrigues Soares², A.J. Probst², B. Kriszt³

¹Dept of Molecular Ecology, Institute of Aquaculture and Environmental Safety, Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary

²Group for Aquatic Microbial Ecology, Institute for Environmental Microbiology and Biotechnology, University of Duisburg-Essen, Essen, Germany

³Dept of Environmental Safety, Institute of Aquaculture and Environmental Safety, Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary

ID 15

PERSPECTIVES OF MICROBIAL DEGRADATION AND RECYCLING OF PLASTICS

Hermann J. Heipieper, O. Puiggene, M.J. Cardenas Espinosa, and C. Eberlein

Dept of Environmental Biotechnology, Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany

ID 16

TOWARDS BIORECYCLING OF POLYURETHANES: STRATEGIES OF PSEUDOMONAS CAPEFERRUM TDA1 FOR EXTRA- AND INTRACELLULAR DEGRADATION

Christian Eberlein, O. Puiggene, M.J. Cardenas Espinosa, and H.J. Heipieper

Dept of Environmental Biotechnology, Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany

ID 25

PHOTO-EBPR SYSTEMS AS MEANS TO REDUCE THE AERATION NECESSITIES DURING ENHANCED BIOLOGICAL PHOSPHOROUS REMOVAL

Virgínia Carvalho, Elisabete Freitas, Paulo Silva, Joana Fradinho, Adrian Oehmen and Maria Reis

UCIBIO-REQUIMTE, Dept of Chemistry, Universidade NOVA de Lisboa, Caparica, Portugal

ID 72

MICROALGAE BIOREACTORS FOR BIOGAS POLISHING AND PRODUCTION OF HIGH QUALITY FERMENTATION SUBSTRATES

Dimosthenis Sarigiannis^{1,2}, Vassou Michalis¹, A. Gypakis³ and I. Zarkadas¹

¹ Environmental Engineering Lab, Dept of Chemical Engineering, Aristotle Univ. of Thessaloniki, Greece

² Environmental and Sanitary Engineering, Institute for Advanced Study (IUSS), Pavia, Italy

³ General Secretariat for Research and Innovation, Ministry of Education, Res. and Rel. Affairs, Greece

ID 74

IMPACT OF THE PRESENCE OF A NATURAL BIOFILM ON MOBILITY AND REACTIVITY TOWARDS TETRACHLOROETHYLENE (PCE) OF NZVI USED FOR NANOREMEDIATION

Crampon Marc, Hellal Jennifer, M. Caroline, M. Christophe, Wille Guillaume and O. Patrick

Bureau de Recherches Géologiques et Minières BRGM, Orléans Cedex 02 – France

ID 75

NANO-BIOREMEDIATION: A COMBINATION OF NZVI PARTICLES AND CARBOXYMETHYL CELLULOSE ENHANCED BY ELECTRIC FIELD

Vojtech Stejskal^{1,2}, K. Marková¹, J. Nosek¹, M. Černík¹; P. Kvapil² and J. Hrabal³

¹ Department of nanomaterials in natural sciences, Technical University of Liberec, Czech Republic

² Photon Water Technology s.r.o., Czech Republic ³ Mega a.s., Czech Republic

ID 155

STUDY OF THE ELIMINATION OF PHOSPHATE AND NITRATE IN WATER BY USING IRON OXIDES NANOPARTICLES OBTAINED BY TOP TO DOWN APPROACH

Vicenc Martí^{1,2}, J.A. Benito¹, I. Jubany², D. Ribas², R. Margalef-Martí³, R. Carrey³, N. Otero^{3,4} and A. Soler³

¹ Barcelona Research Center in Multiscale Science and Engineering-EEBE, Technical University of Catalonia (UPC), Barcelona, Spain

² Fundació CTM Centre Tecnològic, Manresa, Spain

³ Grup de Mineralogia Aplicada i Geoquímica de Fluids, Facultat de Ciències de la Terra, Universitat de Barcelona (UB), Spain

⁴ Serra Hunter Fellowship, Generalitat de Catalunya

ID 37

MICROAEROBIC AND AEROBIC BTEX DEGRADING BIOFILM BACTERIA – POPULATION DYNAMICS IN PHYLOGENETIC AND FUNCTIONAL POINT OF VIEW

Tibor Benedek¹, Flóra Szentgyörgyi², István Szabó², Balázs Kriszt² and András Táncics¹

¹ Regional University Centre of Excellence in Environmental Industry, Szent István University, Hungary

² Dept of Environmental Safety and Ecotoxicology, Szent István University, Hungary

10:45 - 11:15 Coffee break & Poster Viewing (Section B)

11:15 - 13:15 SESSION – 9A: VALORIZATION – II – ROOM A

Chairpersons: Joan Garcia and TBA

ID 86

GRAPE POMACE VALORIZATION VIA THE PRODUCTION OF HEXANOIC ACID, FUEL ADDITIVES, PHAs, AND BIOMETHANE

G. A. Martinez¹, J. M. B. Domingos¹, E. Morselli¹, Emma Jones¹, C. Gioia¹, P. Marchese¹, A. M. Raspolti Galletti², A. Celli¹, F. Fava¹ and L. Bertin¹

¹ Dept of Civil, Chemical, Environmental and Materials Engineering (DICAM), University of Bologna, Italy

ID 98	<p>² Dept of Chemistry and Industrial Chemistry, University of Pisa, Pisa, Italy FROM CO₂ TO PHA: EXPLORING ANOXYGENIC PHOTOSYNTHETIC BACTERIA <u>André Freches^{1,2}, G. Farnocchia^{1,2}, J. Almeida^{1,2}, J. Fradinho^{1,2}, M. Reis^{1,2}</u></p>
	<p>¹ Associate Laboratory i4HB - Institute for Health and Bioeconomy, NOVA School of Science and Technology, Universidade NOVA de Lisboa, Caparica, Portugal ² UCIBIO – Applied Molecular Biosciences Unit, Department of Chemistry, NOVA School of Science and Technology, Universidade NOVA de Lisboa, Caparica, Portugal</p>
ID 109	<p>SUSTAINABLE FOOD WASTE BIOREFINERY: INSIGHTS INTO THE CONVERSION OF ENDOGENOUS LACTATE INTO CAPROATE</p>
ID 112	<p><u>Andrea Gianico, A. Gallipoli, G. Gazzola, S. Crognale, S. Rossetti, B. Tonanzi, C.M. Braguglia</u> Water Research Institute, National Research Council of Italy, CNR-IRSA, Monterotondo, Roma, Italy. RECYCLING MIXED BIOWASTE INTO VALUABLE CHEMICALS AS MEDIUM-CHAIN CARBOXYLIC ACIDS: THE ROLE OF THERMAL PRETREATMENT</p>
	<p>B. Tonanzi¹, A. Gallipoli¹, G. Cecchini², A. Frugis², A. Gianico¹, M. Lazzazzara², V. Piemonte³, M. Valentinetti³, Camilla M. Braguglia¹</p>
	<p>¹ Water Research Institute, National Research Council of Italy, CNR-IRSA, Monterotondo, Roma, Italy. ² ACEA ELABORI SpA, Via Vitorchiano 165, Rome, Italy. ³ University Campus Bio-medico, Faculty of Engineering, Roma, Italy</p>
ID 55	<p>PHYSICO-CHEMICAL CHARACTERIZATION OF SAWDUST DERIVED LOW COST BIOCHAR FOR POTENTIAL APPLICATION IN IMMOBILIZATION OF METALLIC CONTAMINATIONS FROM RIVER SEDIMENTS</p>
	<p><u>Abhijit Debnath¹, P. Kumar Singh¹ and Y. Chandra Sharma²</u> ¹ Dept of Civil Engineering, Indian Institute of Technology (BHU) Varanasi, India ² Dept of Chemistry, Indian Institute of Technology (BHU) Varanasi, India</p>
ID 82	<p>FLASH ORAL PRESENTATIONS: SUPPLY AND APPLICATION OF FIBER CROPS FOR SUSTAINABLE SOIL REMEDIATION AND BIO-BASED RAW MATERIAL PRODUCTION FOR INDUSTRIAL USES – FORTE PROJECT (https://www.forte-project.gr)</p>
	<p><u>Eleni G. Papazoglou</u> Agricultural University of Athens, Dept of Crop Science, Athens, Greece.</p>
ID 89	<p>VALORIZATION OF PRIMARY BUOYANT MUNICIPAL WASTEWATER SLUDGE FRACTION THROUGH VOLATILE FATTY ACIDS PRODUCTION</p>
	<p><u>Akarsh Swamilingappa Anniah, G. Agustín Martínez, F. Fava, and L. Bertin</u> Dept. of Civil, Chemical, Environmental, and Materials Engineering – DICAM, University of Bologna, Italy</p>
ID 90	<p>PREFERABLE ENZYMATIC HYDROLYSIS OF SOFT TISSUE WASTE INTO FERMENTABLE SUGARS WITH SUBSEQUENT CONVERSION INTO BIOETHANOL</p>
	<p><u>Tarek H. Taha¹, A. Mansy², M. Abu-Saied³, H. El-Gendi⁴, E. El Desouky⁵, R. Amer¹</u> ¹Environmental Biotechnology Dept, Genetic Engineering and Biotechnology Research Institute (GEBRI), City of Scientific Research and Technological Applications (SRTA-CITY), Alexandria, Egypt. ²Environment and Natural Materials Research Institute (ENMRI), City of Scientific Research and Technological Applications, (SRTA-CITY), Alexandria, Egypt. ³Polymer Materials Research Dept, Advanced Technology and New Materials Research Institute, City of Scientific Research and Technological Applications (SRTA-CITY), Alexandria, Egypt. ⁴Bioprocess Development Dept, Genetic Engineering and Biotechnology Research Institute (GEBRI), City of Scientific Research and Technological Applications (SRTA-CITY), Alexandria, Egypt. ⁵Chemistry department, Faculty of science, Alexandria University, Egypt.</p>
<p>11:15 - 13:15 SESSION – 9B: Constructed Wetlands & Phytoremediation of Organics – ROOM B Chairpersons: Alexandros Stefanakis & TBA</p>	
ID 192 Keynote	<p>CONSTRUCTED WETLANDS FOR SUSTAINABLE WASTEWATER MANAGEMENT IN A CIRCULAR ECONOMY: GLOBAL EXPERIENCES AND CASE STUDIES</p>
ID 14	<p><u>Alexandros Stefanakis</u> School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece OPTIMIZATION OF THE GREEN LIVER SYSTEM® FOR PHYTOREMEDIATION OF PHARMACEUTICALS IN SURFACE WATERS</p>
	<p><u>Maranda Esterhuizen^{1,2,3}, and Stephan Pflugmacher³</u> ¹ University of Helsinki, Ecosystems and Environment Research Programme, Faculty of Biological and Environmental Sciences, and Helsinki Institute of Sustainability Science (HELSUS), Helsinki, Finland ² Env. Safety Group, Korea Institute of Science and Technology (KIST) Europe, Saarbrücken, Germany ³ University of Manitoba, Faculty of Environment, Earth, and Resources, Winnipeg, Canada</p>

ID 26	<p>INFLUENCE OF PLANT ROOT EXUDATES ON ROOT COLONIZATION AND RHIZOREMEDIATION POTENTIAL OF PCB-DEGRADING BACTERIA <u>Elisa Ghitti</u>, E. Rolli and S. Borin Dept of Food, Environmental and Nutritional Sciences (DeFENS), Università degli Studi di Milano, Italy</p>
ID 59	<p>CUCURBITS AND THEIR SECONDARY METABOLITES AS STIMULATORS OF BIOLOGICAL REMEDIATION OF SOIL CONTAMINATED WITH PHENOXY ACID HERBICIDES <u>Elżbieta Mierzejewska</u>^{1,2}, S. Thijs², W. Toloczko³, A. Baran⁴, M. Tankiewicz⁵, K. Zagibajlo⁶, J. Vangronsveld² and M. Urbaniak¹ ¹ UNESCO Chair in Ecohydrology and Applied Ecology, Dept of Biology and Environmental Protection, University of Lodz, Poland ² Centre for Environmental Sciences, University of Hasselt, Belgium ³ Dept of Physical Geography, Faculty of Geography, University of Lodz, Poland ⁴ Dept of Agricultural and Environmental Chemistry, University of Agriculture in Krakow, Poland ⁵ Dept of Environmental Toxicology, Faculty of Health Sciences, Medical University of Gdansk, Poland ⁶ Food Safety Laboratory, The National Institute of Horticultural Research in Skierniewice, Poland</p>
ID 35	<p>PHYTOMANAGEMENT OF AGRICULTURAL SOILS HISTORICALLY CONTAMINATED BY DIELDRIN <u>Marie-Cécile Affholder</u>¹, G. Cohen¹, M. Mench² ¹EPOC - UMR CNRS 5805 – Equipe PROMESS, Université de Bordeaux - Bordeaux INP, Talence, France ² Université de Bordeaux, INRAE, UMR BIOGECO INRAE 1202, Pessac, France</p>
FLASH ORAL PRESENTATIONS:	
ID 179	<p>ESTIMATION OF NITROGEN FIXATION RATE IN A DUCKWEED LEMNA MINOR AQUA SYSTEM <u>Ioanna Goudeli</u>¹, <u>Anestis Vlysidis</u>^{1,2} ¹ School of Chemical Engineering, National Technical University of Athens, Greece ² School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece</p>
ID 148	<p>THE DIVERSE PREDISPOSITION OF VARIOUS MACROPHYTE SPECIES FOR GROWTH IN THE HYBRID SEQUENTIAL BIOFILTRATION SYSTEM <u>Anna Wyrwicka-Drewniak</u>¹, <u>Edyta Kiedrzyńska</u>^{2,3}, <u>Marcin Kiedrzyński</u>⁴ and <u>Patrycja Kopa</u>¹ ¹ Dept of Plant Physiology and Biochemistry, Faculty of Biology and Environmental Protection, University of Lodz, Poland ² European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Lodz, Poland ³ UNESCO Chair Ecohydrology and Applied Ecology, Faculty of Biology and Environmental Protection, University of Lodz, Poland ⁴ Dept of Biogeography Paleocology and Nature Conservation, Faculty of Biology and Environmental Protection, University of Lodz, Poland</p>
ID 102	<p>INFLUENCE OF pH AND INOCULUM VOLUME IN CONSTRUCTED WETLANDS AT LABORATORY SCALE TO REMOVE CADMIUM FROM “LA ESPERANZA” ACID MINE DRAINAGE <u>Lucia Ramos</u>, <u>Fernando Merino</u> and <u>Susana Gutierrez</u> Microbiology and Microbial Biotechnology Laboratory, Biological Sciences Faculty, Universidad Nacional Mayor de San Marcos, Lima, Peru</p>
ID 79	<p>COUPLING ACID MINE DRAINAGE TREATMENT AND BIOREMEDIATION OF ORGANIC BIOWASTE BY MEANS OF CONSTRUCTED WETLANDS <u>Irene Acosta Hernández</u>, <u>H. Lizeth Medina-Díaz</u>, <u>Y. Delgado González</u>, <u>F.J. López- Bellido Garrido</u>, <u>D. Sánchez Ramos</u> and <u>J. Villaseñor Camacho</u> Chemical Engineering Department, Research Institute for Chemical and Environmental Technologies (ITQUIMA), University of Castilla La Mancha UCLM, Ciudad Real, Spain</p>
ID 107	<p>PGP ENDOPHYTIC BACTERIA AS RESOURCES FOR RHIZO-REMEDICATION OF PROTECTED AREAS AFFECTED BY PETROLEUM HYDROCARBONS <u>Alice Melzi</u>, <u>Sarah Zecchin</u>, <u>Martina Bertolini</u>, <u>Lucia Cavalca</u> Dept of Food, Environmental and Nutritional Sciences (DeFENS), Università degli Studi di Milano, Italy</p>
8:30 - 9:15	<p>PLENARY LECTURE #3 – ROOM A Session Chairpersons: Nicolas Kalogerakis & Fabio Fava</p>
ID 189	<p>DEPOLLUTING THE MEDITERRANEAN: JOIN THE EUROPEAN MISSION <u>Sieglinde GRUBER</u> <i>Senior Advisor EU Commission - Former Head of Unit of the Healthy Seas and Oceans Unit, European Commission</i></p>

13:15 – 18:45 WEDNESDAY AFTERNOON - FREE TIME

13:15 - 15:00 EFB - Environmental Biotechnology Section meeting (Room B)

20:00 - 00:30 Conference GALA DINNER

Location: EUPHORIA hotel

(Busses leave at 19:15 from the venue hotel)

THURSDAY, JUNE 16TH, 2022

8:30 - 9:15 PLENARY LECTURE #4 – ROOM A

Session Chairpersons: Nicolas Kalogerakis & Fabio Fava

ID 190 TOWARDS SUSTAINABLE WATER AND LAND MANAGEMENT - OPTIMIZING THE WATER-ECOSYSTEM-FOOD NEXUS AT KOILIARIS CRITICAL ZONE OBSERVATORY

Prof. Nikolaos Nikolaidis

Department of Chemical & Environmental Engineering, TU-Crete, Chania, Greece

9:15 - 10:45 SESSION – 10A: Valorization – III – ROOM A

Chairpersons: TBA

ID 127 COULD INDUSTRIAL HEMP SUPPORT THE RESTORATION OF CONTAMINATED SITES?

Danai Kotoula, P. Georgiou, G. Papadopoulos and E.G. Papazoglou

Department of Crop Science, Agricultural University of Athens, Athens, Greece

ID 133 BIODEGRADATION OF OILY WASTEWATER AND PRODUCTION OF BIOSURFACTANTS AND POLYHYDROXYALKANOATES BY *PSEUDOMONAS* STRAINS

C. Varnava¹, E. Pinakoulaki², N. Chronakis², Y. Apidianakis³ and Argyro Tsipa^{1,4},

¹Dept of Civil and Environmental Engineering, University of Cyprus, Nicosia, Cyprus

²Dept of Chemistry, University of Cyprus, Nicosia, Cyprus

³Dept of Biological Sciences, University of Cyprus, Nicosia, Cyprus

⁴Nireas International Water Research centre, University of Cyprus, Nicosia, Cyprus

ID 139 LACTOBIONIC ACID PRODUCTION FROM CHEESE WHEY BY ENTEROBACTER SP.

Roberta Romano, F. Fava and N. Raddadi

Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, Univ. of Bologna, Italy

ID 146 OLIVE MILL WASTE VALORIZATION FOR THE PRODUCTION OF HIGH ADDED VALUE BIOPRODUCTS: AN INTEGRATED APPROACH

Anestis Vlysidis^{1,2}, Konstantinos Tzathas²

¹School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece

²School of Chemical Engineering, National Technical University of Athens, Greece

FLASH ORAL PRESENTATIONS:

ID 129 HYALURONIC ACID, CHONDROITIN SULFATE AND OLIGOPEPTIDES WITH ANTI-INFLAMMATORY ACTIVITY ISOLATED FROM ANIMAL BY-PRODUCTS

Hana Stiborova¹, P. Kastanek², J. Viktorova¹, P. Lipovova¹ and K. Demnerova¹

¹Dept of Biochemistry and Microbiology, Univ. of Chemistry and Technology, Prague, Czech Republic

²EcoFuel Laboratories s.r.o., Prague, Czech Republic

ID 177 CONVERTING WASTE INTO ORGANIC BIOFERTILISERS SUPPORTING CROP RESISTANCE AGAINST DROUGHT

Sylvia Siebielec¹, G. Siebielec², A. Lewicki³, J. Pulka³, S. Szufa⁴, P. Piersa⁴ and L. Adrian⁴

¹Dept. of Agricultural Microbiology, Inst. of Soil Science and Plant Cultivation, Pulawy, Poland

²Dept. of Soil Science Erosion and Land Protection, Inst. of Soil Science and Plant Cultivation, Poland

³Dept. of Biosystems Engineering, Poznan University of Life Sciences, Poland

⁴Faculty of Process Engineering and Environmental Protection, Łódź University of Technology, Poland

ID 78 VALORIZATION OF AGRO-WASTE FOR LACCASE PRODUCTION FOR SUCCESSIVE REMEDIATION OF TEXTILE EFFLUENTS

Shweta Kalia, Anushree Malik

Applied Microbiology Lab, Centre for Rural Development and Technology, IIT, Delhi, New Delhi, India.

09:15-10:45 SESSION – 10B: Phytoremediation of mixed contaminants – ROOM B

Chairpersons: TBA

ID 42 ADVANCING IN THE APPLICATION OF INNOVATIVE PHYTOMANAGEMENT STRATEGIES IN CONTAMINATED AREAS OF THE SUDOE SPACE: PROGRESS OF THE Phy2SUDOE PROJECT

Michel Mench¹, C. Garbisu², L. Epelde², S. Soussou³, M. Soto Lopez⁴, A. Hernandez⁴, L. Dudoit⁵, J. Vilela⁶, P. Castro⁷, H. Moreira⁷, S. Almeida Pereira⁷, B. Rodríguez Garrido⁸, A. Pietro Fernandez⁸, C. Monterroso Martínez⁹, E. Cardoso⁷, S. Jouveau¹, R. Burlett¹, S. Delzon¹, A. Albareda⁶, A. Nunes de Sousa¹⁰ and J. Maria Becerril¹¹

- ¹ INRAE, BIOGECO, University of Bordeaux, Pessac, France
² NEIKER-Instituto Vasco de Investigación y Desarrollo Agrario, Derio, Spain
³ Fertil'Innov Environnement, Grabels, France
⁴ Universidad del País Vasco, Departamento Zoología y Biología Celular Animal, Leioa, Spain
⁵ Departement de la Charente, Angoulême, France
⁶ Centro de Estudios Ambientales, Vitoria-Gasteiz, Spain
⁷ Universidade Católica Portuguesa, Porto, Portugal
⁸ Instituto de Investigaciones Agrobiológicas de Galicia (IIAG), CSIC, Santiago de Compostela, Spain
⁹ University of Santiago de Compostela, Dept. de Edafología y Química Agrícola, Spain
¹⁰ CloverStrategy, Coimbra, Portugal
¹¹ Universidad del País Vasco, Plant Biology and Ecology, Leioa, Spain

ID 87 **USE OF NANOMATERIALS FOR ENHANCING SUNFLOWER ASSISTED BIOREMEDIATION OF A PCB AND HEAVY METAL POLLUTED SOIL**
G. Aimola¹, A. Gatto¹, L. Curri², D. Napolitano³, A. Lacirignola³, L. Rolando³, E. Fanizza⁴, M. Tumolo¹, R. Comparelli², A. Barra Caracciolo³ and Valeria Ancona¹

- ¹ Water Research Institute, National Research Council (IRSA-CNR) Bari, Italy
² Dept. of Chemistry, University of Bari, Italy ³ CISA SpA, Massafra (TA), Italy
⁴ Institute of Chemical and Physical Processes, National Research Council (IPCF-CNR) Bari, Italy
⁵ Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy

ID 94 **THE ACTIVITY OF THE ZCR6 STRAIN DURING THE PHYTOREMEDIATION OF SOIL CO-CONTAMINATED WITH HYDROCARBONS AND HEAVY METALS**
M. Prach¹, P. Niemiec¹, A. Sinkkonen² and Magdalena Pacwa-Plociniczak¹

- ¹ Institute of Biology, Biotechnology and Environmental Protection, Faculty of Natural Sciences, University of Silesia in Katowice, Poland

- ² Natural Resources Institute Finland, Finland

ID 95 **BACTERIAL ASSISTED PHYTOREMEDIATION OF SOIL CO-CONTAMINATED WITH HYDROCARBONS AND HEAVY METALS USING ZEA MAYS AND ZCR5 STRAIN**

A. Kumor¹, S. Gobetti¹, Tomasz Plociniczak¹, A. Sinkkonen² and M. Pacwa-Plociniczak¹

- ¹ Institute of Biology, Biotechnology and Environmental Protection, Faculty of Natural Sciences, University of Silesia in Katowice, Poland

- ² Natural Resources Institute Finland, Finland

ID 160 **ASSESSMENT OF *VICIA SATIVA*, *TRIFOLIUM INCARNATUM*, AND *TRIFOLIUM RESUPINATUM* NUTRIENT SUPPORT AND PHYTOREMEDIATION POTENTIAL AS A COVER CROP FOR WILLOW**

Yu Wang¹, Margaret Graham², Alistair Hamilton¹, Andrew Innes¹, and Jennifer Carfrae¹

- ¹ Scotland's Rural College (SRUC), United Kingdom

- ² School of Geoscience, University of Edinburgh, United Kingdom

FLASH ORAL PRESENTATIONS:

ID 27 **BIOFORTIFIED AND CLIMATE-RESILIENT FOOD AND FODDER PRODUCTION ON MARGINAL AND CONTAMINATED SOILS**

Michel Mench¹, E. Loit², I. Keres², V. Povilaitis³, F. Rineau⁴, B. Rutkowska⁵, P. Schröder⁶, K. Tiideberg², W. Szulc⁵, R. Zydalis³

- ¹ INRAE, BIOGECO, University of Bordeaux, Pessac, France

- ² Estonian University of Life Sciences, Crops Science and Plant Biology, Tartu, Estonia

- ³ Lithuanian Research Centre for Agriculture and Forestry, Kedainiai distr., Lithuania

- ⁴ Universiteit Hasselt, Environmental Biology, Hasselt, Belgium

- ⁵ Warsaw University of Life Sciences, Warsaw, Poland

- ⁶ Helmholtz Zentrum München, Deutsches Forschungszentrum für Gesundheit und Umwelt (GmbH), Neuherberg, Germany

ID 99 **NATURE BASED SOLUTIONS FOR RESTORING A MULTI-CONTAMINATED SOIL: A MICROCOSM STUDY WITH BRASSICA NAPUS**

Valeria Ancona¹, G. Aimola¹, A. Gatto¹, V.A. Lacirignola², D. Napolitano², P. Grenni³, G.L. Garbini³, D. Losacco¹, S. Convertini⁴, P.M. Carmignano⁴, V.F. Uricchio¹ and A.B. Caracciolo³

- ¹ Water Research Institute, National Research Council (IRSA-CNR) Bari, Italy

- ² CISA SpA, Massafra (TA), Italy

- ³ Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy

- ⁴ ReAgri srl, Massafra (TA), Italy

ID 138 **RHIZOSPHERIC MICROBIOMES OF *AMARANTHUS* SPP. GROWN ON SOILS WITH DIFFERENT ANTHROPOGENIC POLYELEMENTAL ANOMALIES**

Anna Muratova¹ and S. Gorelova²

¹Institute of Biochemistry and Physiology of Plants and Microorganisms, Russian Academy of Sciences, Saratov, Russia

²Tula State University, Tula, Russia

ID 180

BRIDGING THE GAP BETWEEN PHYTOREMEDIATION SOLUTIONS ON GROWING ENERGY CROPS ON CONTAMINATED LANDS AND CLEAN BIOFUEL PRODUCTION – THE GOLD PROJECT

Eleni G. Papazoglou¹, M. Wójcik², J. Vangronsveld^{2,3}, N. Oustriere⁴, M. Mench⁵, W. Zegada-Lizarazu⁶, E. Alexopoulou⁷

¹Dept. of Crop Science, Agricultural University of Athens, Athens, Greece

²Dept. of Plant Physiology and Biophysics, Maria Curie-Skłodowska University, Lublin, Poland

³Centre for Environmental Sciences, Hasselt University, Diepenbeek, Belgium

⁴Institut Supérieur d'Agriculture, Yncréa Hauts-de-France, Lille Cedex, France

⁵INRAE, BIOGECO, University of Bordeaux, Pessac, France

⁶Dept. of Agricultural and Food Sciences, University of Bologna, Bologna, Italy

⁷Centre for Renewable Energy Sources and Saving, Attika, Greece

10:45-11:15 Coffee break & Poster Viewing (Section B)

11:15-13:15 SESSION - 11A: Valorization – IV – ROOM A

Chairpersons: TBA

ID 136

FROM WASTE TO RESOURCE: PRODUCTION OF BIOCHAR FROM OLIVE MILL SOLID WASTE FOR A NOVEL TREATMENT OF MICROPOLLUTANTS IN EFFLUENTS

Sara Azerrad^{1,2}, Guy Peer^{1,3} and Hassan Azaizeh^{3,4}

¹Shamir Research Institute, University of Haifa, Qatzrin, Israel

²The Natural Resources and Environmental Research Center—NRERC, University of Haifa, Haifa, Israel

³Tel Hai College, Department of Environmental Science, Upper Galilee, Israel

⁴Institute of Applied Research (Affiliated with University of Haifa), The Galilee Society, Shefa-Amr, Israel

ID 154

REDUCING WATER CONSUMPTION IN THE EXTRACTION PROCESS OF A FUCOSE-RICH POLYMER: IMPACT ASSESSMENT OF A NEW METHODOLOGY

Sílvia Baptista^{1,2,3}, Cristiana A.V. Torres^{1,2}, Chantal Sevrin⁴, Christian Grandfils⁴, Maria A.M. Reis^{1,2}, Filomena Freitas^{1,2}

¹Associate Laboratory i4HB - Institute for Health and Bioeconomy, School of Science and Technology, NOVA University Lisbon, Caparica, Portugal

²UCIBIO – Applied Molecular Biosciences Unit, Department of Chemistry, School of Science and Technology, NOVA University Lisbon, Caparica, Portugal

³73100 Lda., Edifício Arcis, Lisboa, Portugal

⁴Interfaculty Research Centre of Biomaterials (CEIB), University of Liège, Liège, Belgium

ID 88

VALORIZATION OF PADDY STRAW WITH DE-OILED NEEM CAKE FOR PRODUCTION OF CELLULASE FREE XYLANASE ENZYME AND UTILIZATION OF RESIDUAL SPENT AS A BIOFERTILIZER

Garima Singh, Hariprasad P. and Satyawati Sharma

Centre for Rural Development & Technology, Indian Institute of Technology, New Delhi, India

ID 77

HIGH VALUE SOLIDS RECOVERY ALONG WITH BIOCRUDE FROM HYDROTHERMAL LIQUEFACTION OF WASTEWATER GROWN ALGAE: A SUSTAINABLE WASTE BIOREFINERY

Farah Naaz¹, Arghya Bhattacharya¹, Anushree Malik¹, Kamal Kishore Pant²

¹Applied Microbiology Laboratory, Centre for Rural Development and Technology, IIT Delhi, Delhi, India

²Catalytic Reaction Engineering Laboratory, Department of Chemical Engineering, IIT Delhi, Delhi, India

11:15-13:15 SESSION -11B: Bioremediation of metals – bioleaching – ROOM B

Chairpersons: TBA

ID 08

BIOLEACHING OF REAL MINE TAILINGS USING AUTOCHTHONOUS MICROORGANISMS: EFFECTS OF ULTRASOUNDS PRETREATMENT

Irene Acosta, F.J. Fernández-Morales, H.L. Medina-Díaz, L. Rodríguez and J. Villaseñor

Chemical Engineering Department, Research Institute for Chemical and Environmental Technologies (ITQUIMA), University of Castilla La Mancha UCLM, Ciudad Real, Spain

ID 54

COPPER BIOSORPTION BY EXOPOLYSACCHARIDE-PRODUCING CYANOBACTERIA

Matilde Ciani, A. Adessi, R. de Philippis

Dept of Agriculture, Food, Environment and Forestry (DAGRI), University of Florence, Italy

- ID 70** **AMENDMENT-DRIVEN REARRANGEMENT OF NATIVE BACTERIAL COMMUNITIES FOR ENHANCING Cr(VI) BIOREMEDIATION**
Marina Tumolo^{1,2}, D. Losacco^{1,2}, A. Volpe, V.F. Uricchio¹, D. De Paola³ and V. Ancona¹
¹ Water Research Institute - Italian National Research Council, Bari, Italy
² Department of Biology- University of Bari, Italy
³ Institute of Biosciences and Bioresources- Italian National Research Council, Bari, Italy
FLASH ORAL PRESENTATIONS:
- ID 126** **HEAVY METAL BIOSORPTION FROM AQUEOUS SOLUTIONS BY EPS-PRODUCING *SERRATIA PLYMUTHICA* STRAINS**
Rocco Zanetti, Milena Colombo, Sarah Zecchin, Martina Bertolini, Lucia Cavalca
Department of Food, Environmental and Nutritional Sciences, University of Milan, Italy
- ID 183** **BIOREMEDIATION OF METALLURGICAL SLAGS: INSIGHT FROM EXPERIMENTAL EXPOSURE TO BACTERIA, PLANTS AND ORGANIC EXTRACTS**
Anna Potysz¹, Artur Pędziwiatr², Jakub Kierczak¹, Sebastian Hedwig³ and Markus Lenz³
¹ University of Wrocław, Institute of Geological Sciences, Wrocław, Poland
² Warsaw University of Life Sciences (SGGW), Faculty of Agriculture and Biology, Dept of Soil Environment Sciences, Warsaw, Poland
³ Institute for Ecopreneurship, School of Life Sciences, University of Applied Sciences and Arts Northwestern Switzerland, Switzerland
- ID 162** **EFFICACY OF TWO EARTHWORM SPECIES FOR REMEDIATION OF HEAVY METALS FROM CRUDE OIL CONTAMINATED SOIL**
Glory Borah
Ecology and Environmental Remediation Laboratory, Dept of Botany, Gauhati University, Assam, India

13:15-13:45 **CLOSING CEREMONIES & AWARDS - ROOM A**
(Best POSTER & ORAL by Graduate Student)

13:45-15:00 **LUNCH (Minoa Palace Hotel)**

15:00 **END OF CONFERENCE**

FRIDAY, JUNE 17TH, 2022

08:00-18:00 **Conference trip**
Rethymno old-city tour OR Elafonissi beach tour

Conference Programme

(as of May 19, 2022)



POSTER PRESENTATIONS

Poster set up: Monday 10:30
Presentation period: Monday 18:30 to Wednesday 13:00
Poster removal: Thursday 11:00

Marine Pollution and Blue Biotechnology

- ID 45** **BIOSTIMULATION EFFECT OF DIFFERENT PHAs ON A MARINE PCB DECHLORINATING MICROBIAL COMMUNITY**
A. Botti¹, Giulio Zanaroli¹ and F. Fava³
¹Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, Bologna, Italy,
- ID 51** **COMPARISON OF HYDROCARBON-DEGRADING CONSORTIA FROM SURFACE AND DEEP WATERS OF THE EASTERN MEDITERRANEAN SEA**
Georgia Charalampous¹, E. Fragkou¹, K.A. Kormas², A.B. De Menezes³, P.N. Polymenakou⁴, N. Pasadakis^{5,6}, N. Kalogerakis^{1,6}, E. Antoniou^{1,5}, and E. Gontikaki^{1,6}
¹School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece
²Dept of Ichthyology and Aquatic Environment, University of Thessaly, 38446 Volos, Greece
³School of Biology and Environmental Science, University College Dublin, Belfield, Ireland
⁴Institute of Marine Biology, Biotechnology and Aquaculture, HCMR, Heraklion, Greece
⁵School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece
⁶Institute of Geoenergy, Foundation for Research and Technology Hellas, Chania, Greece
- ID 83** **THE DIATOM PHAEODACTYLUM TRICORNUTUM MODULATES BIOACTIVE COMPOUNDS BIOSYNTHESIS IN RESPONSE TO ENVIRONMENTAL STRESS: FROM LAB SCALE TO APPLICATION IN AN INTEGRATED MULTITROPHIC AQUACULTURE SYSTEM**
Concetta Maria Messina¹, E. Curcuraci¹, S. Manuguerra¹, C. Hellio², A. Santulli^{1,2,3}
¹Department of Earth and Marine Sciences DiSTeM, University of Palermo, Trapani, Italy
²Université de Brest, IRD, CNRS, Ifremer, LEMAR, F-29280 Plouzané, France
³Istituto di Biologia Marina, Consorzio Universitario della Provincia di Trapani, Trapani, Italy

ID 132	<p>DIATOMS FOR HEAVY METAL REMEDIATION: PRELIMINARY STUDIES FOR COPPER REMOVAL</p> <p>E. Cavalletti¹, P. Chiaiese², L. Barra³, A. Gallo⁴, M. Spinelli⁵, A. Amoresano⁵, <u>Giovanna Romano</u>¹, S. Balzano¹ and A. Sardo¹</p> <p>¹ Stazione Zoologica Anton Dohrn Napoli, Dept of Ecosustainable Marine Biotechnologies, Napoli, Italy</p> <p>² University of Naples Federico II, Dept of Agricultural Sciences, Portici (NA), Italy</p> <p>³ Stazione Zoologica Anton Dohrn Napoli, Dept of Ecosustainable Marine Biotechn., Amendolara (Cs)</p> <p>⁴ Stazione Zoologica Anton Dohrn Napoli, Dept of Biology and Evolution of Marine Organisms, Italy</p> <p>⁵ University of Naples Federico II, Department of Inorganic and Organic Chemistry, Napoli, Italy</p>
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Water Issues

ID 24	<p>DISINFECTION OF WATER BY UV IN THE PRESENCE OF POLYETHYLENE MICROPLASTICS</p> <p>K. Manoli¹, <u>Andrea Naziri</u>¹, I. Ttofi¹, C. Michael¹, I.J. Allan² and D. Fatta-Kassinou^{1,3}</p> <p>¹ Nireas-International Water Research Center, University of Cyprus, Nicosia, Cyprus.</p> <p>² Norwegian Institute for Water Research, Oslo, Norway.</p> <p>³ Dept of Civil and Environmental Engineering, University of Cyprus, Nicosia, Cyprus.</p>
ID 172	<p>MICROBIALY-INDUCED CARBONATE PRECIPITATION BY ARTHROBACTER, BACILLUS AND MICROCOCCUS SPECIES ISOLATED FROM MARINE SEDIMENTS</p> <p>Panagiotis Persianis¹, Rea Fournari¹, Ioannis Rigopoulos¹, Ioannis Ioannou¹, <u>Argyro Tsipa</u>^{1,2}</p> <p>¹ Department of Civil and Environmental Engineering, University of Cyprus, Nicosia, Cyprus</p> <p>² Nireas International Water Research Center, University of Cyprus, Nicosia, Cyprus</p>
ID 166	<p>APPLICATION OF OZONATION IN DISINFECTION OF SALINE WATER: ENHANCED POTENTIAL FOR BALLAST WATER TREATMENT BY OZONE NANOBUBBLES TECHNOLOGY</p> <p><u>Petroula Seridou</u> and N. Kalogerakis</p> <p>School of Chemical & Environmental Engineering, Technical University of Crete, Chania, Greece</p>

Bioelectrochemical Systems for Bioremediation

ID 100	<p>INTEGRATED SYSTEMS FOR EFFECTIVE ENVIRONMENTAL REMEDIATION</p> <p><u>Rocio Barros</u>¹, B. Velasco Arroyo¹, A. Hassan Ali Khan¹, S. Curiel¹, E. Borrás², M. di Lorenzo³, A. Pérez-de-Mora⁴ and C. Rad⁵</p> <p>¹ International Research Center in Critical Raw Materials for Advanced Industrial Technologies (ICCRAM). University of Burgos, Burgos, Spain.</p> <p>² LEITAT Technological Center, Circular Economy Dept, Terrassa, Barcelona, Spain</p> <p>³ Dept of Chemical Engineering and Centre for Biosensors, Bioelectronics & Biodevices (C3Bio), University of Bath, Claverton Down, UK</p> <p>⁴ TAUW GmbH, Dept. of Soil and Groundwater, München, Germany</p> <p>⁵ Research Group in Composting (UBUCOMP). University of Burgos, Faculty of Sciences, Burgos Spain.</p>
ID 47	<p>INSIGHT THE SOIL MICROBIAL COMMUNITY OF TERRESTRIAL MICROBIAL FUEL CELLS PRODUCING BIOENERGY</p> <p><u>Anna Barra Caracciolo</u>¹, G.L. Garbini^{1,2}, L. Rolando¹, A. Visca¹, V. Ancona³, D. Borello⁴, G. Gagliardi⁴, C. Cosentini⁴, P. Grenni¹</p> <p>¹ Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy</p> <p>² Dept of Ecology and Biological Sciences, Tuscia University, Viterbo, Italy</p> <p>³ Water Research Institute, National Research Council (IRSA-CNR) Bari, Italy</p> <p>⁴ Dept of Mechanical and Aerospace Engineering, Sapienza University of Rome, Italy</p>
ID 143	<p>EFFECT OF GAMMA IRRADIATION PRETREATMENT ON THIABENDAZOLE DEGRADATION COUPLED TO ENERGY PRODUCTION BY BIOELECTRO-CHEMICAL PROCESS</p> <p><u>Nesrine Saidi</u>¹, B. Erable², R. Chaouachi¹, S. Saadaoui¹, L. Etcheverry², A. Slaheddine Masmoudi¹, A. Cherif¹, H. Chouchane¹</p> <p>¹ Univ. Manouba, ISBST, BVBGR-LR11ES31, Biotechpole Sidi Thabet, Ariana, Tunisia</p> <p>² Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, France</p>

Plastics & MPs: fragmentation, monitoring, biodegradation, fate, recycling

ID 05	<p>THE POTENTIAL FOR PHYTOREMEDIATION OF MICROPLASTICS WITH AQUATIC MACROPHYTE LEMNA MINOR</p>
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Andreas Kaliakatsos¹, Th. Manios², A.S. Stasinakis³, N. Katsarakis⁴, M. Fountoulakis³, S. Dokianakis⁴, N. Kalogerakis¹, I. Gounaki¹, D. Venieri¹

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ID 90 PREFERABLE ENZYMATIC HYDROLYSIS OF SOFT TISSUE WASTE INTO FERMENTABLE SUGARS WITH SUBSEQUENT CONVERSION INTO BIOETHANOL

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ID 07 INTEGRAL VALORIZATION OF AGRICULTURAL WASTE BY HYDROTHERMAL CO-CARBONIZATION

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ID 177 CONVERTING WASTE INTO ORGANIC BIOFERTILISERS SUPPORTING CROP RESISTANCE AGAINST DROUGHT

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Crognale Silvia¹, R. Cristina¹, L. Davide¹, L. Dario¹, L.G. Valsecchi², D. Lia³, De Angelis Paolo¹
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V. Mazzurco Miritana¹, L. Passatore¹, M. Zacchini¹, F. Pietrini¹, S. Carloni¹, E. Peruzzi², S. Marinari³, L. Massaccesi³, A. Barra Caracciolo⁴, P. Grenni⁴, L. Rolando⁴, Isabel Nogues¹
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⁴Water Research Institute, National Research Council (IRSA-CNR) Montelibretti, Rome, Italy
- ID 101** **COPPER BIOACCUMULATION STATUS AND PHYTOREMEDIATION POTENTIAL OF SOME AGRICULTURAL PLANT SPECIES GROWING IN POLLUTED AGRICULTURAL LANDS OF ARMENIA**
P. Obregon, F. Merino and Susana Gutierrez
Microbiology and Microbial Biotechnology Laboratory, Biological Sciences Faculty, Universidad Nacional Mayor de San Marcos, Lima, Lima, Peru
- ID 80** **COMBINED ROLE OF GRANULAR FORMULATIONS OF KINNERETIA ASACHHAROPHILA AND ORGANIC AMENDMENTS IN BIOREMEDIATION OF RDX CONTAMINATED SOILS**
Mohd Aamir Khan, S. Yadav, S. Sharma and A. Sharma
¹Indian Institute of Technology Delhi, India
²Amity University, Uttar Pradesh, India
- ID 155** **STUDY OF THE ELIMINATION OF PHOSPHATE AND NITRATE IN WATER BY USING IRON OXIDES NANOPARTICLES OBTAINED BY TOP TO DOWN APPROACH**
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- ID 37** **MICROAEROBIC AND AEROBIC BTEX DEGRADING BIOFILM BACTERIA – POPULATION DYNAMICS IN PHYLOGENETIC AND FUNCTIONAL POINT OF VIEW**
Tibor Benedek¹, Flóra Szentgyörgyi², István Szabó², Balázs Kriszt² and András Tácsics¹
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ID 118	<p>DRAFT GENOME SEQUENCE OF CEPHALOTRICHUM SP. MUT 6686 (SORDARIO-MYCETES; MICROASCACEAE): INSIGHTS FOR MYCOREMEDIATION OF PETROLEUM-CONTAMINATED SITES. <u>Domenico Davolos</u> and B. Pietrangeli Dept of Techn. Innovations and Safety of Plants, Products and Anthropic Settlements, INAIL, Rome, Italy.</p>
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ID 184	<p>NOVEL NONYLPHENOL-DEGRADING BACTERIAL STRAIN ISOLATED FROM SEWAGE SLUDGE FOR ITS BIOREMEDIATION <u>Esmeralda Morillo</u>¹, I. Aguilar-Romero¹, A. Lara-Moreno^{1,2}, F. Madrid¹, J. Villaverde¹ ¹Institute of Natural Resources and Agrobiology of Seville (IRNAS), CSIC, Seville, Spain ²Dept of Microbiology and Parasitology, Faculty of Pharmacy, University of Seville, Seville, Spain</p>
ID 186	<p>ACETAMINOPHEN BIODEGRADATION BY BACTERIAL STRAINS ISOLATED FROM ENRICHMENT CULTURES OF SEWAGE SLUDGE A. Vargas-Ordóñez, I. Aguilar-Romero, <u>Esmeralda Morillo</u> and J. Villaverde Institute of Natural Resources and Agrobiology of Seville (IRNAS), CSIC, Seville, Spain</p>

ID 128 **BIODEGRADING BIOFILMS ON INNOVATIVE BIOPOLYMERIC SUPPORTS**
Elisa Maria Petta¹, M.C. Citarrella², R. Scaffaro², S. Cappello³, P. Quatrini¹ and V. Catania⁴
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ID 177 **CARACTERIZATION OF THE RESULTING SUBSTRATUM OF THE TREATED OILY MUDS AT THE FUEL OIL COMMERCIALIZATION ENTERPRISE FROM VILLA CLARA, CUBA**
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Phytoremediation of heavy metals

ID 48 **EFFECT OF MULTICONTAMINATED SOIL ON WATER RELATIONS OF *PTERIS CRETICA***

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ID 52 **OPTIMIZING PHYTOMANAGEMENT STRATEGIES FOR A METAL (Cd, Pb, Zn, and Cu)-CONTAMINATED SOIL TO PROVIDE BIOMASS FOR CLEAN BIOFUEL PRODUCTION – PROGRESS FROM POT TRIAL**

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ID 64 **EXTRACTION OF AMMONIUM NICKEL SULFATE HEXAHYDRATE BY HYDROMETALLURGICAL PROCESS FROM THE HYPERACCUMULATING PLANT ODONTARRHENA CHALCIDICA – CASE STUDY FROM BULGARIA**
Violina Angelova

Agricultural University of Plovdiv, Bulgaria

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ID 85 **PRELIMINARY DATA ON THE PROSPECTS FOR THE USE OF *AMARANTHUS HYPOCHONDRIACUS* FOR SOIL PHYTOREMEDIATION FROM TOXIC TRACE ELEMENTS**

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EFFICACY OF TWO EARTHWORM SPECIES FOR REMEDIATION OF HEAVY METALS FROM CRUDE OIL CONTAMINATED SOIL

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