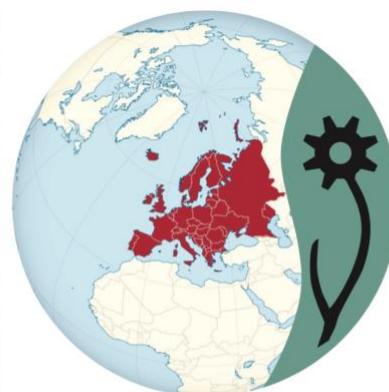


Conference Programme

EBC-VII



ISEB-2018

Joint conference
June 25-28, Chania, Greece

(as of May 31, 2018)

REGISTRATION DESK IS OPEN:

Sunday afternoon (June 24):	17:00 – 20:00
Monday and Tuesday (June 25-26):	08:00 – 13:00 & 17:00 – 20:30
Wednesday and Thursday (June 27-28):	08:00 – 13:30

SUNDAY, JUNE 24TH, 2018

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)
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MONDAY, JUNE 25TH, 2018

09:00 - 09:30	Opening Ceremony – ROOM A N. Kalogerakis, F. Fava, E.J. Olguin, Conference co-Chairs N. Kalogeris, Region of Crete E. Diamantopoulos, Rector, Technical University of Crete
09:30 - 10:30	PLENARY LECTURE #1 – ROOM A Chairpersons: Nicolas Kalogerakis & Philippe Corvini
ID 240	MAKE THE IMPOSSIBLE POSSIBLE: INSECTS DIGEST PLASTICS Professor Jun Yang <i>Dept. of Biochemistry and Enzyme Engineering, School of Chemistry, Beihang University (Beijing University of Aeronautics & Astronautics), Beijing, China</i>
10:30 - 11:00	Coffee break & Poster Viewing (Section A)
11:00 - 13:00	SESSION - 1A: PLASTICS BIODEGRADATION & MARINE LITTER – ROOM A Chairpersons: Jun Yang and Hermann J. Heipieper
ID 123 (Keynote)	P4SB – FROM PLASTIC WASTE TO PLASTIC VALUE USING <i>PSEUDOMONAS PUTIDA</i> SYNTHETIC BIOLOGY <u>Hermann J. Heipieper</u> ¹ , Lars Blank ² and Nick Wierckx ² , for the P4SB consortium ¹ Dept of Environmental Biotechnology, Helmholtz Centre for Environ. Research - UFZ, Leipzig, Germany ² Institute of Applied Microbiology - iAMB, RWTH Aachen University, Aachen, Germany
ID 124	TOWARDS BIORECYCLING: ISOLATION OF A SOIL BACTERIUM THAT GROWS ON A POLYURETHANE OLIGOMER AND MONOMER

	<p><u>Christian Eberlein</u>, Anna Atanasoff, Andrea Colina Blanco, Ilaria de Santis and Hermann J. Heipieper Dept of Environmental Biotechnology, Helmholtz Centre for Environ. Research - UFZ, Leipzig, Germany</p>
ID 383	<p>DEGRADATION OF PLASTICS IN MARINE MICRO- AND MESOCOSMS <u>Evdokia Syranidou</u>, Aikaterini Karkanorachaki, Panagiota Tsiota, Giorgos Dasenakis, Despoina Barouta, Aikaterini Savva, Maria Loli and Nicolas Kalogerakis School of Environmental Engineering, Technical University of Crete, Chania, Greece</p>
ID 121	<p>ENGINEERING <i>PSEUDOMONAS PUTIDA</i> FOR PLASTIC MONOMER UTILIZATION <u>Wing-Jin Li</u>¹, Lars Blank¹ and Nick Wierckx¹ ¹ Institute of Applied Microbiology (iAMB), RWTH Aachen University, Aachen, Germany</p>
ID 122	<p>ENGINEERING AND APPLICATION OF BACTERIAL POLYESTER HYDROLASES FOR THE RECYCLING OF POLYETHYLENE TEREPHTHALATE (PET) AND POLYESTER POLYURETHANE (PUR) WASTE <u>Ren Wei</u> and Wolfgang Zimmermann Dept of Microbiology & Bioprocess Technology, Institute of Biochemistry, Leipzig University, Germany</p>
ID 233	<p>MICROBIAL DEGRADATION OF LOW-DENSITY POLYETHYLENE AND SYNTHESIS OF BIODEGRADABLE POLYHYDROXYALKANOATE POLYMERS <u>David B. Levin</u>¹ and Zahra Montazer^{1,2} ¹ Department of Biosystems Engineering, University of Manitoba, Winnipeg, Canada ² Department of Food Science and Technology, Ferdowsi University of Mashhad, Mashhad, Iran</p>
ID 231	<p>LINEAR LOW DENSITY POLYETHYLENE FILMS: MODELLING OF WEATHERING BY UV EXPOSURE FOLLOWED BY BIODEGRADATION IN SEAWATER <u>Evangelos Birbas</u> and Nicolas Kalogerakis School of Environmental Engineering, Technical University of Crete, Chania, Greece</p>
<p>11:00 - 13:00 SESSION - 1B: PHYTOREMEDIATION TECHNOLOGIES FOR REMOVAL OF METALS – ROOM B Chairpersons: Grzegorz Siebielec & Svetlana Gorelova</p>	
ID 120	<p>AGROMINING: FARMING FOR METALS AND THE VALORIZATION OF METAL-CONTAMINATED LANDS AND WASTES <u>Alan J M Baker</u>^{1,2,3}, Jean Louis Morel¹, Guillaume Echevarria¹ and Antony van der Ent^{1,2} ¹Laboratoire Sols et Environnement and LABEX Ressources21, ENSAIA/INRA, Université de Lorraine, Vandoeuvre-lès-Nancy, France ²Centre for Mined Land Rehabilitation, Sustainable Minerals Institute, The University of Queensland, Brisbane, Australia ³School of BioSciences, The University of Melbourne, Parkville, Victoria 3010, Australia</p>
ID 244	<p>THORIUM AS AN ENVIRONMENT STRESSOR FOR PLANT GROWTH <u>Petr Soudek</u>¹, Aneta Hrdinová^{1,2}, Kateřina Mazari^{1,3}, Daniel Kufner¹, Přemysl Landa¹, Sylva Přerostová^{2,4}, Karel Muller⁴, Zuzana Lhotáková², Martin Mihaljevič⁵, Šárka Petrová¹, Jana Albrechtová² and Tomáš Vaněk¹ ¹Lab of Plant Biotechnologies, Institute of Experimental Botany AS CR, Czech Republic ²Dept. of Experimental Plant Biology, Charles University of Prague, Czech Republic ³Faculty of Environmental Sciences, Czech University of Life Sciences Prague, Czech Republic ⁴Lab of Hormonal Regulations in Plants, Institute of Experimental Botany AS CR, Czech Republic ⁵Inst. of Geochemistry, Mineralogy & Mineral Resources, Charles University of Prague, Czech Republic</p>
ID 248	<p>HEAVY METAL PHYTOREMEDIATION OF POPLAR CLONE IN A CONTAMINATED SOIL IN SOUTHERN ITALY <u>Valeria Ancona</u>¹, Anna Barra Caracciolo², Claudia Campanale¹, Paola Grenni², Martina Di Lenola², Martina Cardoni², Ida Rascio¹, Giuseppe Mascolo¹, Angelo Massacci³ and Vito Felice Uricchio¹ ¹ NRC, Water Research Institute, Bari, Italy ² NCR, Water Research Institute, Monterotondo, Italy ³ NCR, Inst. of Agro-Environmental and Forest Biology, Monterotondo, Italy</p>
ID 284	<p>HALOPHYTES FOR ROAD RUNOFF REMEDIATION: SALT AND METAL ACCUMULATION IN ATRIPLEX HORTENSIS <u>Rémi Suaire</u>¹, Ivana Durickovic¹, Lucie Frammont-Terrasse¹, Jean-Yves Leblain², Anne-Claire De Rouck² and Carole Colin¹ ¹ Cerema Est, Laboratoire de Nancy, 54510 Tomblaine, France ² Cerema Nord Picardie, Laboratoire de Saint Quentin, 02100 Saint-Quentin, France</p>

ID 253	STUDY PROGRESS ON THE PHYTOREMEDIATION OF HEAVY METAL CONTAMINATED SOILS BY BAST FIBER CROPS Wang Yu Fu, Qiu Cai Sheng, Guo Yuan, Long Song Hua, Wang Hui and Hao Dong Mei Institute of Bast Fiber Crops, Chinese Academy of Agricultural Sciences, Changsha, China
ID 264	LESSONS FROM GREENHOUSE AND LONG-TERM FIELD PHYTOSTABILISATION TESTING Grzegorz Siebielec¹, Tomasz Stuczynski¹, Sylwia Siebielec¹, Nick Basta², Piotr Sugier³, Pawel Radzikowski¹ and Petra Kidd⁴ ¹ Institute of Soil Science and Plant Cultivation – State Research Institute, Puławy, Poland ² Ohio State University, US ³ Maria Curie-Skłodowska University, Lublin, Poland ⁴ CSIC, Santiago de Compostella, Spain
ID 118	ROLE OF PINE BACTERIA IN THE PHYTOREMEDIATION OF HEAVY METAL Irum Naz¹, Asghari Bano^{1,2}, Tamoor Ul Hassan^{1,3} ¹ Dept of Plant Sciences Quaid-i-Azam University, Islamabad, Pakistan. ² Dept of Bio Sciences, University of Wah, Pakistan. ³ Dept of Botany, Garden Campus Hazara University, Mansehra, Pakistan.
ID 139	COPPER BIOACCUMULATION STATUS AND PHYTOREMEDIATION POTENTIAL OF SOME AGRICULTURAL PLANT SPECIES GROWING IN POLLUTED AGRICULTURAL LANDS OF ARMENIA Ghazaryan Karen, Ruzan Avetisyan and Hrant Zhamharyan Chair of Ecology and Nature Protection, Yerevan State University, Yerevan, Republic of Armenia
11:00 - 13:00	SESSION – 1C: REMEDIATION OF SITES CONTAMINATED WITH CRUDE OIL, PETROCHEMICALS AND PAHs – ROOM C Chairpersons: Spiros Agathos & Jian Peng
ID 234	EFFECTS OF BIODIVERSITY OF CONSTRUCTED PAH-DEGRADING CONSORTIA ON BIODEGRADATION ACTIVITIES Florian Augelletti¹, Spiros N. Agathos² and Ben Stenuit^{1,3} ¹ Bioengineering Laboratory, Earth & Life Institute, Université Catholique de Louvain, Belgium ² School of Biological Sciences and Engineering, Yachay Tech University, Ecuador ³ Joint Research Unit IATE, Polytech Montpellier, University of Montpellier, France
ID 194	IMPLEMENTATION OF A BIOSURFACTANT-ENHANCED TREATMENT FOR SOILS IMPACTED BY POLYCYCLIC AROMATIC HYDROCARBONS Florian Cazals^{1,2,3}, David Huguenot¹, Stéfan Colombano³, Stéphanie Betelu³, Nathalie Galopin², Arnault Perrault², Marie-Odile Simonnot⁴, Ioannis Ignatiadis³ and Stéphanie Rossano¹ ¹ Laboratoire Géomatériaux et Environnement, University of Paris-Est Marne-la-Vallée, France ² Colas Environnement, France ³ Bureau de Recherches Géologiques et Minières (BRGM), France ⁴ Laboratoire Réactions et Génie des Procédés, University of Lorraine, CNRS, France
ID 116	PILOT-SCALE ENHANCED MYCOREMEDIATION OF PETROLEUM HYDROCARBON IMPACTED SOIL Paul Daniyan¹, Wenhui Xiong² and Jian Peng¹ ¹ Department of Civil, Geological and Environmental Eng., Univ. of Saskatchewan, Canada ² Stantec Consulting Ltd., Saskatoon, Saskatchewan, Canada
ID 218	INTEGRATED BIOREMEDIATION STRATEGY FOR CRUDE OIL AND METAL CONTAMINATED SOIL USING IMMOBILIZED ACTINOBACTERIA AND RHODOCOCCUS-BIOSURFACTANTS Maria S. Kuyukina^{1,2}, Irina B. Ivshina^{1,2}, Anastasia V. Krivoruchko², Tatiana A. Peshkur³ and Colin J. Cunningham⁴ ¹ Microbiology and Immunology Dept., Perm State University, Russia ² Institute of Ecology and Genetics of Microorganisms, Perm Federal Research Centre, Russia ³ Dept. of Civil and Environmental Engineering, University of Strathclyde, UK ⁴ Sustainability Fife Ltd, Glenrothes, UK
ID 147	ENZYMATIC DEGRADATION OF POLYCYCLIC AROMATIC HYDROCARBONS IN INDUSTRIALLY CONTAMINATED SOIL Stefan Humel, Bernadette Führer, Daniela Huber and Andreas P Loibner Institute of Environmental Biotech., BOKU Univ. of Natural Resources and Life Sciences, Austria
ID 267	MYCOREMEDIATION FOR THE TREATMENT OF TPH CONTAMINATED SEDIMENTS: A POSSIBLE ROLE FOR LIGNINOLYTIC BACTERIA?

ID 210	<p><u>Ilaria Chicca</u>^{1,4}, <u>Simone Becarelli</u>^{1,2}, <u>Giovanna Siracusa</u>¹, <u>Salvatore La China</u>³, <u>Giulio Petroni</u>¹, <u>David Levin</u>⁴ and <u>Simona Di Gregorio</u>¹¹</p> <p>¹ University of Pisa, Department of Biology, Pisa, Italy ² BD BioDigressioni srl, Pisa, Italy ³ University of Modena and Reggio Emilia, Italy ⁴ University of Manitoba, Canada</p> <p>COMPOST BIOREMEDIATION OF CRUDE OIL SLUDGE WITH ANIONIC AND NONIONIC SURFACTANTS</p> <p><u>Linda U. Obi</u>¹, <u>Harrison I. Atagana</u>² and <u>Rasheed A. Adeleke</u>³</p> <p>¹Department of Environmental Sciences, University of South Africa. ²Institute for Science and Technology Education (ISTE), University of South Africa. ³Institute for Soil, Climate and Water, Agricultural Research Council, Pretoria, South Africa.</p>
13:00 - 14:00 LUNCH (Minoa Palace Hotel)	
14:00 - 17:00 FREE TIME	
17:00 - 17:45 Coffee break & Poster Viewing (SECTION A)	
17:45 - 18:30 PLENARY LECTURE #2 – ROOM A Chairpersons: Nicolas Kalogerakis & Fabio Fava	
ID 389	<p>EMERGING OPPORTUNITIES OF NANOTECHNOLOGY AT THE WATER-ENERGY NEXUS</p> <p>Professor Pedro J.J. Alvarez</p> <p><i>Department of Civil & Environmental Engineering, Rice University, Houston, USA</i></p>
18:30 – 20:30 SESSION - 2A: OIL SPILLS & MARINE POLLUTION – MITIGATION MEASURES - ROOM A Chairpersons: Daniele Daffonchio and Fabio Fava	
ID 305	<p>THE HYDROCARBON DEGRADATION POTENTIAL OF THE SEAWATER MICROBIOME IN THE RED SEA</p> <p>Grégoire Michoud, Giuseppe Merlino, Stylianos Fodelianakis and <u>Daniele Daffonchio</u></p> <p>King Abdullah University of Science and Technology (KAUST), Biological and Environmental Sciences and Engineering Division (BESE), Thuwal, Saudi Arabia</p>
ID 385	<p>BIOREMEDIATION OF HYDROCARBON RELEASES IN DEEP SEA</p> <p><u>Eleftheria Antoniou</u>, <u>Marios Daskalakis</u>, <u>Nikos Pasadakis</u> and <u>Nicolas Kalogerakis</u></p> <p>School of Environmental Engineering, Technical University of Crete, Chania, Greece</p>
ID 196	<p>OIL SPILLS BIOREMEDIATION WITH NATIVE HYDROCARBON-DEGRADING BACTERIA: SPILLESS PROJECT</p> <p><u>Rafaela P. Mendes</u>¹, <u>Diogo A.M. Alexandrino</u>¹, <u>Maria Bôto</u>^{1,2}, <u>Joana P. Fernandes</u>¹, <u>Filipa Santos</u>¹, <u>Hugo Ribeiro</u>¹, <u>Catarina Magalhães</u>^{1,2}, <u>Sandra Ramos</u>^{1,3}, <u>Maria F. Carvalho</u>¹, <u>C. Marisa R. Almeida</u>¹ and <u>Ana P. Mucha</u>¹</p> <p>¹ Interdisciplinary Centre of Marine and Environ. Research, Univ. of Porto, Matosinhos, Portugal ² Faculty of Sciences, University of Porto, Rua do Campo Alegre 790, 4150-171 Porto, Portugal ³ Institute of Estuarine and Coastal Studies, University of Hull, Hull, HU6 7RX, UK</p>
ID 232	<p>AEROBIC BIOSTIMULATION OF BURIED MACONDO OIL: METAGENOMIC AND BIOGEOCHEMICAL ASSESSMENT OF A NEW RESPONSE APPROACH</p> <p><u>John H. Pardue</u>, <u>Vijaikrishnah Elango</u>, <u>Olivia Bramlet</u>, <u>LeeAnn Fitch</u> and <u>Zachary Romaine</u></p> <p>Dept of Civil & Environmental Engineering, Louisiana State University, USA</p>
ID 154	<p>PRELIMINARY ASSESSMENT OF MARINE ACTINOBACTERIAL DIVERSITY AROUND INDIAN NUCLEAR POWER PLANT (NPP) SITES AND ITS APPLICATION TO BIOREMEDIATION OF RADIONUCLIDES</p> <p><u>Pitchiah Sivaperumal</u>¹, <u>Kannan Kamala</u>² and <u>Rajendran Rajaram</u>³</p> <p>¹Center for Environmental Nuclear Research, SRM Institute of Science and Technology, India ²Department of Biotechnology, SRM Institute of Science and Technology, Kattankulathur, India ³Department of Marine Science, Bharathidasan University, Tiruchirappalli, India</p>
ID 238	<p>COLONIZATION DYNAMICS OF MICROPLASTICS BY A MARINE MICROBIAL COMMUNITY AND TRANSFORMATION OF SORBED PCBs</p> <p><u>Antonella Rosato</u>, <u>Andrea Negroni</u>, <u>Fabio Fava</u> and <u>Giulio Zanaroli</u></p>

ID 352	Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy THE URGENT NEED FOR Hg MONITORING IN GREEK COASTAL WATERS. IMPLEMENTATION OF WFD-MSFD AND EVALUATION OF GES.
ID 384	Olga Chalkiadaki, Theodora Paramana, Vasiliki Paraskevopoulou and Manos Dassenakis Lab of Environ. Chemistry, Dept of Chemistry, National and Kapodistrian University of Athens, Greece TEMPO-SPATIAL DYNAMICS OF MICRO AND MESOPLASTICS AND PAHS POLLUTION IN COASTAL ENVIRONMENTS Katerina Karkanorachaki, Sotiris Kiparissis, Georgina Calypso Kalogerakis, Evangelia Yiantzi, Eleftheria Psillakis and Nicolas Kalogerakis School of Environmental Engineering, Technical University of Crete, Chania, Greece
18:30 - 20:30 SESSION - 2B: PHYTOREMEDIATION TECHNOLOGIES FOR REMOVAL OF METALS – ROOM B Chairpersons: Eleni Papazoglou & Eleni Manousaki	
ID 369	RHIZOSPHERE MICROBIOME OF BLACK POPLARS IN RESPONSE TO HEAVY METAL STRESS AND COMPOST AMENDMENT Castiglione Stefano¹, Guarino Francesco¹, Heinze Berthold² and Ciatelli Angela¹ ¹ Dept. of Chemistry and Biology “A. Zambelli”, University of Salerno, Italy ² Federal Research and Training Centre for Forests, Natural Hazards and Landscape, Austria
ID 378	CADMIUM PHYTOREMEDIATION OF CONTAMINATED AGRICULTURAL SOILS USING VALUE-ADDED CROPS Eleni G. Papazoglou¹ and Efthymia Alexopoulou² ¹ School of Agricultural Production, Infrastructure & Environ., Agricultural Univ. of Athens, Greece ² Centre for Renewable Energy Sources and Saving, Pikermi, Attika, Greece
ID 318	PERENNIAL ENERGY CROPS IN CHEMOPHYTOSTABILIZATION PILOT TRIAL ON HEAVY METAL CONTAMINATED LAND. Elaine Jensen¹, Bill Perkins², Andy Brown², Peter Stanley³, Tom Williams³, Kate Rolt¹, Jacek Krzyżak⁴, Marta Pogrzeba⁴ and Iain Donnison¹ ¹ Institute of Biological, Environmental and Rural Sciences, Aberystwyth University, Wales, UK ² Department of Geography and Earth Sciences, Aberystwyth University, Wales, UK ³ Natural Resources Wales, Swansea, UK ⁴ Institute for Ecology of Industrial Areas, Katowice, Poland
ID 348	BACTERIA-DRIVEN REMOVAL OF SULFATES AND HEAVY METALS FROM ACIDIC HYDROMETALLURGICAL EFFLUENTS AND ALKALINE FLOTATION TAILINGS Witold Uhrzynowski, Aleksandra Kurowska, Damian Kakietek and Lukasz Drewniak Lab of Environmental Pollution Analysis, Faculty of Biology, University of Warsaw, Warsaw, Poland
ID 229	PHOTOSYNTHESIS EFFICIENCY OF MISCANTHUS SEED BASED HYBRIDS GROWN ON HEAVY METAL CONTAMINATED LAND Szymon Rusinowski¹, Jacek Krzyżak¹, John Clifton-Brown², Jon Paul McCalmont², Andreas Kiesel³, Anja Mangold³, Michal Mos⁴ and Marta Pogrzeba¹ ¹ Institute for Ecology of Industrial Areas, Katowice, Poland ² Institute of Biological, Environmental and Rural Sciences (IBERS), Aberystwyth University, UK ³ Department of Biobased Products and Energy Crop, University of Hohenheim, Stuttgart, Germany ⁴ Terravesta Ltd., Cedar Farm, Main Street, South Carlton, Lincoln, LN1 2RH UK
ID 271	PERSPECTIVES OF EXOTIC WOODY PLANT IMPLEMENTATION IN PHYTOREMEDIATION OF TOXIC ELEMENTS IN INDUSTRIAL CITIES OF TEMPERATE CLIMATE ZONES Svetlana V. Gorelova¹, M.V. Frontasyeva², S.M. Lyapunov³, A.V. Gorbunov³ and O.I. Okina³ ¹ Department of Biology, Natural Sciences Institute, Tula State University, Tula, Russia ² Department of Neutron Activation Analysis and Applied Research, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia ³ Laboratory of Chemical and Analytical Researches, Geological Institute of RAS, Moscow, Russia
ID 272	PERSPECTIVES OF USING C-4 - PLANTS FOR PHYTOREMEDIATION OF INDUSTRIAL SOILS CONTAMINATED WITH HEAVY METALS Svetlana Gorelova¹, Marina Frontasyeva², Anatoliy Gorbunov³ and Sergey Lyapunov³ ¹ Department of Biology, Natural Sciences Institute, Tula State University, Tula, Russia ² Department of Neutron Activation Analysis and Applied Research, Frank Laboratory of Neutron Physics, Joint Institute for Nuclear Research, Dubna, Russia ³ Laboratory of Chemical and Analytical Researches, Geological Institute of RAS, Moscow, Russia

ID 141	<p>COPPER PHYTOREMEDIATION POTENTIAL OF NATIVE PLANT SPECIES GROWING IN THE MINE POLLUTED AREAS OF SOUTH ARMENIA Ghazaryan Karen, <u>Antonyan Susanna</u> and Movsesyan Hasmik Chair of Ecology and Nature Protection, Faculty of Biology, Yerevan State University, Republic of Armenia</p>
18:30 – 20:30	<p>SESSION - 2C: REMEDIATION OF SITES CONTAMINATED WITH CRUDE OIL, PETROCHEMICALS AND PAHs – ROOM C Chairpersons: Andreas Loibner & Maria Nikolopoulou</p>
ID 372	<p>A PILOT STUDY OF LANDFARMING APPLICATION TO A DIESEL-CONTAMINATED SOIL <u>Maria Nikolopoulou</u>¹, K. Marakis¹, G. Mamakos¹, N. Pasadakis² and Nicolas Kalogerakis¹ ¹ School of Environmental Engineering, Technical University of Crete, Chania, Greece ² School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece</p>
ID 222	<p>EVALUATION OF BIOAUGMENTATION AND BIOSTIMULATION IN DIESEL-CONTAMINATED SOIL MICROCOSMS Francesca Bosco¹, Annalisa Casale¹, <u>Fulvia Chiampo</u>¹ and Alberto Godio² ¹ Applied Science and Technology Department - DISAT, Politecnico di Torino, Italy ² Department of Environment, Land and Infrastructure Engineering - DIATI, Politecnico di Torino, Italy</p>
ID 293	<p>BACTERIAL COMMUNITY RESPONSES DURING BIOAUGMENTATION OF SOIL CONTAMINATED WITH PETROLEUM HYDROCARBONS <u>Magdalena Pacwa-Plociniczak</u>, Joanna Czaplą, Tomasz Plociniczak, Paulina Biniecka, Kinga Bondarczuk and Zofia Piotrowska-Seget University of Silesia in Katowice, Department of Microbiology, Katowice, Poland</p>
ID 247	<p>ENHANCING PHENANTHRENE BIODEGRADATION BY ADDING ORGANIC AMENDMENTS IN SOIL <u>Victor T. Omoni</u> and Kirk T. Semple Lancaster Environment Centre, Lancaster University, Lancaster, UK</p>
ID 331	<p>VALORISATION OF SEWAGE SLUDGE DIGESTATE FOR THE REMEDIATION OF WEATHERED TPH CONTAMINATED SOILS – COMPOSTING, BIOSLURRY TREATMENT AND BACTERIA IMMOBILIZATION ON BIOCHAR <u>Anna Gielnik</u>^{1,2,3}, Yoan Pechaud¹, David Huguenot¹, Giovanni Esposito², Gilles Guibaud³ and Eric D. van Hullebusch^{1,4} ¹ Université Paris-Est, Laboratoire Géomatériaux et Environnement (LGE), UPEM, Marne-la-Vallée, France ² Dept of Civil and Mechanical Engineering, University of Cassino and Southern Lazio, Cassino, FR, Italy ³ Université de Limoges, Groupement de Recherche Eau Sol Environnement, Limoges, France ⁴ IHE Delft Institute for Water Education, P.O. Box 3015, 2601 DA, Delft, The Netherlands</p>
ID 221	<p><i>Pseudomonas kunmingensis</i> strain BUN14: AN EFFICIENT HYDROCARBON-DEGRADING BACTERIUM ISOLATED FROM A PETROLEUM CONTAMINATED SITE <u>Mouna Elmahjoubi</u>^{1,2}, Habibu Aliyu^{3,4}, Simone Cappello⁵, Yasmine Souissi¹, Mohamed Neifar¹, Atef Jaouani⁶, Don A. Cowan⁴ and Ameer Cherif¹ ¹ Univ. Manouba, ISBST, BVBGR-LR11ES31, Biotechpole SidiThabet, Ariana, Tunisia ² Faculty of Science of Bizerte, University of Carthage, Zarzouna, Bizerte, Tunisia ³ Section II: Technical Biology, Institute of Process engineering in Life Science, Germany ⁴ Centre for Microbial Ecology and Genomics, University of Pretoria, Pretoria, South Africa ⁵ Istituto per l' Ambiente Marino Costiero (IAMC)-CNR of Messina. Sp. San Raineri, Messina, Italy ⁶ Laboratory of Microorganisms and Active Biomolecules, University of Tunis El Manar, Tunisia</p>
ID 142	<p>IMPROVEMENT OF HYDROCARBONS POLLUTED SOIL BIOREMEDIATION BY MEANS OF HELPING OF COMPOST <u>José Villaseñor</u>¹, Carmen M. Fernández¹ and Mercedes García-Muñoz² ¹ Chemical Engineering Department, Research Institute for Chemical and Environmental Technologies (ITQUIMA), University of Castilla La Mancha UCLM, 13071 Ciudad Real, Spain ² Gestión de Residuos Manchegos S.L. (GESREMAN), Madridejos (Toledo), Spain</p>
ID 337	<p>POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) BIOREMEDIATION EMPLOYING <i>Cyperus brevifolius</i> AND BACTERIAL CONSORTIA <u>Hemen Deka</u>¹, Madhusmita Dihingia², Supriyo Sen³, Jiumoni Lahkar⁴ and Jyotismita Das⁵ ¹ Department of Botany, Gauhati University, Guwahati, Assam, India ² Life Sciences Division, Institute of Advanced Study in Science and Technology, Guwahati, Assam, India ³ Schools of Life Sciences, Assam Don Bosco University, Tepesia, Sonapur, Assam, India ⁴ CSIR-North East Institute of Science & Technology, Jorhat, Assam, India ⁵ Department of Zoology, Nowgong College, Nagaon, Assam, India</p>

TUESDAY, JUNE 26TH, 2018

8:30 - 9:15 **PLENARY LECTURE #3 – ROOM A**

Chairpersons: Nicolas Kalogerakis & Fabio Fava

ID 387 **CHALLENGES IN GROUNDWATER REMEDIATION – COMBINED TREATMENT PROCESSES**

Professor Brent E. Sleep

Dept of Civil & Mineral Engineering, University of Toronto, Toronto, ON, Canada

9:15 - 10:45 **SESSION - 3A: GROUNDWATER REMEDIATION / REGROUND FINAL PROJECT CONFERENCE – ROOM A**

Chairpersons: Brent E. Sleep and Marco Petrangeli Papini

ID 126 **REGROUND: RECLAMATION OF TOXIC METAL CONTAMINATED AQUIFERS USING IRON OXIDE NANOPARTICLES**

(Keynote) **Sadjad Mohammadian, Beate Krok and R. Meckenstock (on behalf of REGROUND Consortium)**

Biofilm Centre, University of Duisburg-Essen, Germany

ID 102 **REMEDATING 1,2-DP CONTAMINATED GROUNDWATER IN LOW-PERMEABILITY MEDIA USING MICRO-SCALE ZVI AND ORGANIC CARBON AMENDMENT**

Alberto Leombruni¹, Mueller Michael¹, Linda Collina² and Mario Sunseri²

¹ PeroxyChem, Philadelphia, PA, USA ² S.G.M. Geologia ed Ambiente srl, Ferrara - Italy

ID 165 **GROUNDWATER CIRCULATION WELL TECHNOLOGY (IEG-GCW®) FOR ENHANCED NATURAL ATTENUATION OF TCE AND PCE**

Marina Badia-Fabregat¹, Irene Jubany¹, Francesc Travesa², Pilar Centrich², Roser Centrich², Eduard J. Alesi³, Melanie Esslinger³, Marcel Alesi³, Gert Rehner³, Pavan Laxmipathy⁴, Andres Abad Gonzalez⁵, Aron Kneer⁵ and Britta Nestler^{4,5}

¹ Eurecat-Fundació CTM Centre Tecnològic, Manresa, Spain ² Hidronit Medioambiente S.L., Barcelona, Spain

³ IEG Technologie GmbH, Gruibingen, Germany

⁴ Karlsruhe Institute of Technology, Institute of Applied Materials (IAM-CMS), Karlsruhe, Germany

⁵ Institute of Digital Materials Science, University of Applied Science, Karlsruhe, Germany

ID 237 **IN-SITU BARRIER OF IRON OXIDE NANOPARTICLES FOR RECLAMATION OF GROUNDWATER POLLUTED WITH ARSENIC (ASTURIAS, SPAIN)**

Nerea Otaegi¹, Ekain Cagigal¹, Sadjad Mohammadian², Andreas Fritzsche³, Tiziana Tosco⁴ and Rainer Meckenstock²

¹ Division of Sustainable Construction, TECNALIA Research & Innovation, Spain

² Biofilm Centre, University Duisburg-Essen, Germany

³ Institut für Geowissenschaften LS Hydrogeologie, Friedrich-Schiller-Universität Jena, Germany

⁴ Dipartimento di Ingegneria dell'Ambiente, del Territorio e delle Infrastrutture, Politecnico di Torino, Italy

ID 241 **ENHANCING *IN SITU* BIOREMEDIATION BY INJECTION OF COLLOIDAL ACTIVATED CARBON FOR THE REMEDIATION OF A CHLORINATED SOLVENT PLUME**

Marco Petrangeli Papini¹, Firoozeh Arjmand¹, Paolo Ciampi¹, Carlo Esposito¹, Jeremy Birnstingl², Marcello Carboni², Paola Gorla², Simona Rossetti³, Bruna Matturro³, M. Bacchi⁴ and P. Foglietto⁴

¹ University of Rome "La Sapienza", Italy ² Regenesys, Ltd., Europe ³ IRSA- CNR, Monterotondo, Italy

⁴ Rete Ferroviaria Italiana, RFI, Italy

9:15 - 10:45 **SESSION – 3B: INNOVATIVE APPROACHES AND TOOLS FOR MONITORING AND BIOREMEDIATION – ROOM B**

Chairpersons: Danny Reible & Harrison I Atagana

ID 113 **INTEGRATING MICROBIAL BIOMASS, COMPOSITION AND FUNCTION TO DISCERN THE LEVEL OF ANTHROPOGENIC ACTIVITY IN A RIVER ECOSYSTEM**

Kailingli Liao^{1,2}, Yaohui Bai¹, Yang Huo^{1,2}, Zhiyu Jian¹, Wanchao Hu^{1,2}, Chen Zhao¹ and Jiuhui Qu¹

¹ Key Laboratory of Drinking Water Science and Technology, Research Center for Eco-Environmental Sciences, CAS, Beijing, China ² University of Chinese Academy of Sciences, Beijing, China

ID 128 **IDENTIFICATION OF KEY HYPOXIC TOLUENE DEGRADERS IN A SHALLOW BTEX-CONTAMINATED AQUIFER BY DNA STABLE ISOTOPE PROBING**

Andras Tancsics¹, Anna Róza Szalay², Milan Farkas¹, Tibor Benedek¹, Sandor Szoboszlai³, Istvan Szabo³ and Tillmann Lueders²

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

²Institute of Groundwater Ecology, Helmholtz Zentrum München, Germany

³Department of Environmental Safety and Ecotoxicology, Szent István University, Hungary

ID 156 **³⁷Cl- AND ¹³C-COMPOUND SPECIFIC ISOTOPE ANALYSIS AND MOLECULAR TOOLS TO MONITOR CHLOROBENZENE BIODEGRADATION**

Tatiana Stella¹, Andrea Franzetti¹, Francesca de Ferra², Ilaria Pietrini², Giovanna Carpani², Orfan Shouakar-Stash^{3,4}, Ramon Aravena³, Luca Alberti⁵ and Massimo Marchesi⁵

¹ Dept of Earth and Environmental Sciences, University of Milano-Bicocca, Italy

² Research Center for Non-Conventional Energy, ENI Institute for Environmental Technologies, Italy

³ Dept of Earth and Environmental Sciences, University of Waterloo, Canada ⁴ Isotope Tracer Technologies Inc., Waterloo, Canada ⁵ Dept of Civil and Environmental Engineering, Politecnico di Milano, Italy

ID 176 **IMPROVED TOOLS AND METHODOLOGIES FOR EVALUATING THE LINK OF STORMWATER METAL RELEASE TO SEDIMENT RECONTAMINATION**

Ilektra Drygiannaki¹, Balaji Rao¹, Magdalena Rakowska¹, Danny Reible¹, Allen Burton², Bart Chadwick³, G. Rosen³, Molly Colvin³, Robert Pitt⁴, Eric Strecker⁵, B. Steets⁵ and Megan Otto⁵

¹ Texas Tech University, 2500 Broadway, Lubbock, TX, USA

² University of Michigan, 500 S State St, Ann Arbor, MI, USA ³ US Navy SPAWAR, San Diego, CA, USA

⁴ University of Alabama, Ret., Tuscaloosa, AL, USA ⁵ Geosyntec Consultants, USA

ID 291 ***Halomonas spp* AND *Psychrobacter aquaticus* ARE PROMISING SPECIES FOR DESIGN OF HALOTOLERANT BIOANODES COUPLING TO SALINE WASTEWATER TREATMENT**

Refka Askri¹, Habib Chouchane¹, Luc Etchevery², Mohamed Neifar¹, Hanen Cherif¹, Ahmed Slaheddine Masmoudi¹, Federico Aulenta³, Benjamin Erable² and Ameur Cherif^{*}

¹ Univ. Manouba, ISBST, BVBGR-LR11ES31, Biotechpole Sidi Thabet, 2020, Ariana, Tunisia.

² Laboratoire de Génie Chimique CNRS - Université de Toulouse (INPT), Toulouse, France

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

ID 333 **CHARACTERIZATION AND BIOREMEDIATION OF SEDIMENTED FIBER ORIGINATING FROM PULP AND PAPER INDUSTRY**

Marja R.T. Palmroth¹, Marika Kokko¹, Noora Lindroos², Juho Mansikkamäki², Pritha Chatterjee¹ and Jukka Rintala¹

¹ Tampere University of Technology, Laboratory of Chemistry and Bioengineering, Tampere, Finland

² Ramboll Finland Oy, Tampere, Finland

9:15 - 10:45 **SESSION – 3C: EMERGING CONTAMINANTS IN SOILS, SEDIMENTS AND GROUNDWATER – ROOM C**

Chairpersons: Maria Gavrilescu and Simone Cappello

ID 371 **NEW INSIGTS ON THE BIODEGRADATION OF EMERGING WATER MICROPOLLUTANTS: CASE STUDY WITH CARBAMAZEPINE**

Lidia Favier¹, Céline Le Duc¹, Maria Gavrilescu², Ildikó Fekete-Kertész³, Adrian Augustyniak⁴, Mónika Molnár³ and Abdeltif Amrane¹

¹ Univ Rennes, Ecole Nationale Supérieure de Chimie de Rennes, Rennes, France

² Dept. of Environmental Engineering and Management, “Gheorghe Asachi” TU-Iasi, Romania

³ Dept. of Applied Biotechnology and Food Science, Budapest Univ. of Technology and Economics, Hungary

⁴ Dept. of Immunology, Microbiology, and Phys. Chemistry, West Pomeranian Univ. of Technology, Poland

ID 167 **MICROBIAL REMOVAL OF PHARMACEUTICAL RESIDUES IN THE HYPORHEIC ZONE**

Cyrus Rutere¹, Malte Posselt² and Marcus A. Horn^{1,3}

¹ Department of Ecological Microbiology, University of Bayreuth, Germany

² Department of Environmental Science and Analytical Chemistry, Stockholm University, Sweden

³ Institute of Microbiology, Leibniz University Hannover, Germany

ID 184 **COMBINED CHEMICAL AND BIOLOGICAL OXIDATION FOR THE REMOVAL OF THIAMETHOXAM**

Esther Gomez-Herrero¹, Hafida ElHadi-Lebik^{2,3}, Montserrat Tobajas¹, Hamid Ait-Amar², Juan J. Rodriguez¹ and Angel F. Mohedano¹

¹ Chemical Engineering, Universidad Autonoma de Madrid (UAM), Madrid, Spain

² LSGPI, Faculté de Génie Mécanique et de Génie des Procédés, Université des Sciences et de la Technologie Houari Boumediene (USTHB), Bab-Ezzouar, Algeria

³ Unité de Développement des Equipements Solaires, UDES, Centre de Développement des Energies Renouvelables, Tipaza, Algeria

ID 197	BIODEGRADATION OF PAROXETINE AND BEZAFIBRATE BY BACTERIA ISOLATED FROM ESTUARINE ENVIRONMENT <u>Joana P. Fernandes</u> ^{1,2} , <u>Patrícia Duarte</u> ^{1,2} , <u>C. Marisa R. Almeida</u> ¹ , <u>M. Fátima Carvalho</u> ¹ and <u>Ana P. Mucha</u> ¹ ¹ CIMAR/CIIMAR, Universidade do Porto, Matosinhos, Portugal ² Instituto Ciências Biomédicas Abel Salazar - Universidade do Porto, Porto, Portugal
ID 260	USING MICROMYCETES FOR ENVIRONMENTAL SERVICES: WHITE LIVER SYSTEM FOR PHARMACEUTICAL BIOREMEDIATION <u>Maranda Esterhuizen-Londt</u> ¹ , and <u>Stephan Pflugmacher</u> ^{1,2,3} ¹ Ecotoxicology in an Urban Environment, Ecosystems and Environmental Research Programme, Faculty of Biological and Environmental Sciences, University of Helsinki, Lahti, Finland ² Korea Inst. of Science & Technology Europe, Joint Lab of Applied Ecotoxicology, Saarbrücken, Germany ³ Helsinki Institute of Sustainability Science (HELSUS), University of Helsinki, Lahti, Finland
10:45 – 11:15 Coffee break & Poster Viewing (Section A)	
11:15 – 13:15 SESSION - 4A: GROUNDWATER REMEDIATION / REGROUND FINAL PROJECT CONFERENCE – ROOM A Chairpersons: Beate A. Krok and Sadjad Mohammadian	
ID 103	ELSTM MICROEMULSION – ITALIAN FIELD RESULTS OF EMULSIFIED LECITHIN-BASED SUBSTRATES USED AS ERD TREATMENT OF CHLORINATED SOLVENTS IN GROUNDWATER <u>Alberto Leombruni</u> ¹ , <u>Mueller Michael</u> ¹ and <u>Federica Morlacchi</u> ² ¹ PeroxyChem, Philadelphia, PA USA ² Centro Assistenza Ecologica Srl, Ancona , Italy
ID 150	QUICK AND EASY TESTING SYSTEM FOR THE MOBILITY AND REACTIVITY OF COLLOIDAL IRON OXIDE NANOPARTICLES IN NATURAL SEDIMENTS– UPSCALING FROM LAB TO FIELD APPLICATION <u>Beate A. Krok</u> , <u>Sadjad Mohammadian</u> , and <u>Rainer U. Meckenstock</u> Biofilm Centre, University of Duisburg Essen, Gemany
ID 183	APPLICATION OF GOETHITE COLLOIDS FOR EFFICIENT REMOVAL OF ARSENIC IN CONTAMINATED GROUNDWATER <u>Daniela Montalvo</u> and <u>Erik Smolders</u> Department of Earth and Environmental Sciences, KU Leuven, Belgium
ID 187	BIOREMEDIATION OF LEAD-ZINC MINE-IMPACTED AQUIFERS USING MISCANTHUS-DERIVED BIOCHAR <u>Temilola Olanrewaju</u> ¹ and <u>William Perkins</u> ² ¹ School of Geography and Environmental Sciences, Ulster University, UK ² Institute of Geography and Earth Sciences, Aberystwyth University, UK
ID 205	A NOVEL APPROACH TO CONTROL THE DEPOSITION AND FATE OF PARTICLES IN POROUS MEDIA FOR AN EFFECTIVE AQUIFER NANOREMEDIATION <u>Carlo Bianco</u> , <u>Tiziana Tosco</u> , <u>Alberto Tiraferri</u> and <u>Rajandrea Sethi</u> Dept. of Environment, Land and Infrastructure Engineering, Politecnico di Torino, Italy
ID 206	A MODEL ASSISTED PROCEDURE TO SUPPORT THE DESIGN OF FIELD SCALE NANOREMEDIATION OF METAL CONTAMINATED AQUIFERS <u>Tiziana Tosco</u> , <u>Carlo Bianco</u> and <u>Rajandrea Sethi</u> Dept. of Environment, Land and Infrastructure Engineering, Politecnico di Torino, Italy
ID 211	AGING OF HUMIC ACID-COATED GOETHITE COLLOIDS AND THE EFFECT ON THEIR ECOTOXICITY AND AFFINITY FOR METAL(LOID) ADSORPTION <u>Andreas Fritzsche</u> ¹ , <u>Marie Mollenkopf</u> ¹ , <u>Verónica Gonzáles-Andres</u> ² , <u>Maria Diez-Ortiz</u> ² , <u>Daniela Montalvo Grijalva</u> ³ and <u>Kai Totsche</u> ¹ ¹ Chair of Hydrogeology, Friedrich-Schiller-University Jena, Germany ² Human & Environmental Health & safety Division, LEITAT Technological Centre Barcelona, Spain ³ Department of Earth and Environmental Sciences, KU Leuven, Belgium
ID 399	DETOXIFICATION EFFICIENCY DURING BIOELECTROCHEMICAL TREATMENT OF GROUNDWATER CONTAMINATED BY CAHs: AN ECOTOXICOLOGICAL EVALUATION <u>Maria Teresa Palumbo</u> ¹ , <u>Agnese Lai</u> ² , <u>M. Mingazzini</u> ¹ , <u>Mauro Majone</u> ² and <u>Federico Aulenta</u> ³ ¹ Water Research Institute (IRSA-CNR), National Research Council, Brugherio (MB), Italy ² Department of Chemistry, Sapienza University of Rome, Rome, Italy

³ Water Research Institute (IRSA-CNR), National Research Council, Monterotondo (RM), Italy

11:15 - 13:15 SESSION - 4B: CONSTRUCTED WETLANDS / PHYTOREMEDIATION OF ORGANIC CONTAMINANTS – ROOM B

Chairpersons: Francesca Mapelli and Jaco Vangronsveld

- ID 227 PLANT GROWTH PROMOTING BACTERIA: A PROMISING TOOL IN PHYTODEPURATION OR A RISK FOR ANTIBIOTIC RESISTANCE SPREAD?**
Francesca Mapelli¹, Valentina Riva¹, Redouane Choukr-Allah², A. Rashed³ and Sara Borin¹
¹University of Milan, DeFENS, Italy. ²Hassan II Institut Agronomique et Veterinaire, Morocco
³ National Water Research Center, Egypt
- ID 281 BACTERIAL-ASSISTED PHYTOREMEDIATION TO COMPLEMENT *IN SITU* FLOATING LAYER REMOVAL FOR REMEDIATION OF FUEL OIL CONTAMINATED SOIL**
Panagiotis Gkorezis^{1,2}, Jonathan Van Hamme³, A. Franzetti⁴, Jaco Vangronsveld¹, Sofie Thijs¹
¹ Hasselt University, Centre for Environmental Sciences Agoralaan, Diepenbeek, Belgium
² PSMT Environmental Technologies, Lommel, Belgium
³ Thompson Rivers University, Dept of Biological Sciences, Kamloops, BC, Canada
⁴ University of Milano-Bicocca, Dept of Environmental Sciences, Milano, Italy
- ID 292 IMPROVEMENT OF PHYTOREMEDIATION OF AN AGED PETROLEUM HYDROCARBON-POLLUTED SOIL BY RHAMNOLIPID AND ENDOPHYTIC *Rhodococcus erythropolis* CDEL 254 STRAIN**
Tomasz Plociniczak, Natalia Ptaszek and Zofia Piotrowska-Seget
University of Silesia in Katowice, Dept of Microbiology, Katowice, Poland
- ID 295 SUSTAINABLE USE OF CONSTRUCTED WETLANDS FOR WASTEWATER TREATMENT AND REUSE IN SMALL COMMUNITIES**
Hassan Azaizeh^{1,2}, Fayiz Sayed¹, Ammar Abou-kandil¹ and Yoram Gerchman³
¹ Institute of Applied Research (Affiliated with University of Haifa), The Galilee Society, Shefa-Amr, Israel
² Tel Hai College, Dept of Environmental Science, Upper Galilee, Israel
³ University of Haifa at Oranim, Tivon, Israel
- ID 364 LONG TERM (2 YEARS) CONSTRUCTED WETLANDS TREATMENT OF COMBINED STORMWATER, SEWAGE AND LIVESTOCK WASTEWATER IN REMOTE MOUNTAINOUS RURAL AGGLOMERATIONS**
Diego Cicero-Fernández¹, J. A. Expósito-Camargo¹, M. Peña-Fernández¹ and B. Antúzar-Ladislao^{1,2,3}
¹Asociación RIA, Centro Mpal de Empresas de Camargo, Cantabria, Spain
²Isle Utilities, Camelford House, London, UK
³Infrastructure and Environment Research, School of Engineering, Univ. of Glasgow, UK
- ID 152 ANGIOSPERM TYPE RESPONSE TO CRUDE BUNKER OIL CONTAMINATED WATER BODY: USING THE LEAF AS A PHYTOREMEDIATION INDICATOR**
Po-Hsun, Cheng¹, Luyanda Ndelela^{1,2}, Christoff Truter³, Anna-Maria Botha³ and Paul Johan Oberholster^{1,4}
¹ CSIR Natural Resources and the Environment, Stellenbosch, South Africa
² Dept of Zoology, University of Stellenbosch, Matieland, Stellenbosch, South Africa
³ Dept of Genetics, University of Stellenbosch, Matieland, Stellenbosch, South Africa
⁴ Dept of Earth Science, University of Western Cape, Bellville, South Africa
- ID 216 NITRATE REMOVAL BY PLANT BASED BIOREMEDIATION USING *Utricularia aurea* FROM EUTROPHIC LAKE OF THEERTHAMKARA, INDIA**
K. Usharani^{1,2} and K.V. Keerthi²
¹Dept of Environmental Sciences, Bharathiar University, TN, India² Dept of Environmental Science, Central University of Kerala, India
- ID 117 PHYTOREMEDIATION AND RHIZOREMEDIATION POTENTIAL OF WEEDS AND THEIR ASSOCIATED MICROFLORA TO Pb IN OIL POLLUTED SOIL**
Bushra Rehman³, Tamoor Ul Hassan^{1,3} and Asghari Bano^{2,3}
¹Dept of Botany, Garden Campus Hazara University, Mansehra, Pakistan.
²Dept of Bio Sciences, University of Wah, Pakistan.
³Dept of Plant Sciences Quaid-i-Azam University, Islamabad, Pakistan

11:15 - 13:15 SESSION - 4C: EMERGING CONTAMINANTS IN SOILS, SEDIMENTS AND GROUNDWATER – ROOM C

Chairpersons: Jong Moon Park & David B Levin

- ID 324 NOVEL BIOACTIVE IONIC LIQUIDS – FROM SYNTHESIS TO ADVANCED FIELD STUDIES**
Lukasz Chrzanowski
Institute of Chemical Technology and Engineering, Poznan University of Technology, Poznan, Poland
- ID 170 ROLE OF UNCULTIVABLE BACTERIA IN SULFAMETHOXAZOLE DEGRADATION**
Ana C. Reis^{1,2}, Ana Tskhvediani², B. A. Kolvenbach², Philippe F.X. Corvini² and Olga C. Nunes¹
¹ Lab for Process Engineering, Environment, Biotechnology and Energy, Chemical Engineering Dept, University of Porto, Porto, Portugal
² Institute for Copreneurship, School of Life Sciences, FHNW, Muttenz, Switzerland
- ID 186 PHYTOEXTRACTION OF ANTIDEPRESSANTS – A MODEL STUDY**
Stanislav Smrček, Alena Grasserová, Nicollete Hatasová and Kateřina Kozielová
Dept of Organic Chemistry, Faculty of Science, Charles University, Prague, Czech Republic
- ID 188 ISOLATION AND CHARACTERIZATION OF MICROBIAL COMMUNITIES CAPABLE OF BIODEGRADING TWO HIGHLY PERSISTENT FLUORINATED FUNGICIDES**
Diogo A. M. Alexandrino^{1,2}, Ana P. Mucha¹, Filipa Silva³, Andreia Ribeiro³, C. Marisa R. Almeida¹ and Maria F. Carvalho¹
¹ CIIMAR – Interdisciplinary Centre of Marine and Environmental Research, University of Porto, Portugal
² Institute of Biomedical Sciences Abel Salazar, University of Porto, Portugal
³ Faculty of Sciences, University of Porto, Portugal
- ID 290 2,4-DINITROANISOLE (DNAN) DEGRADATION MEDIATED BY Fe(III)-REDUCING, PHOTOSYNTHETIC, AND FERMENTATIVE BACTERIA**
Jolanta Niedźwiecka and Kevin Finneran
Dept of Environmental Engineering and Earth Sciences, Clemson University, USA
- ID 261 USING THE ENVIRONMENTAL SERVICE OF MACROPHYTES – GREEN LIVER SYSTEMS TO REMEDIATE TOXICANTS FROM WATER**
Stephan Pflugmacher^{1,2,3} and Maranda Esterhuizen-Londt¹
¹ University of Helsinki, Lahti, Finland ² Helsinki Inst. of Sustainable Sciences (HELSUS), Helsinki, Finland
³ Korean Institute of Science and Technology (KIST Europe), Saarbruecken, Germany
- ID 155 MICROORGANISMS AND ARSENIC: EXPLOITATION OF MICROBIALLY-MEDIATED PROCESSES FOR WATER TREATMENT**
Simona Crognale¹, Stefano Amalfitano¹, Barbara Casentini¹, Stefano Fazi¹, Maurizio Petruccioli² and Simona Rossetti¹
¹ Water Research Institute, National Research Council (IRSA - CNR), Italy
² Dept of Innovation in Agroforestry and Biological Systems (DIBAF), University of Tuscia, Viterbo, Italy
- ID 168 FIRST INSIGHT INTO METABOLIC PATHWAY OF RITALINIC ACID IN THE CONTEXT OF SEWAGE EPIDEMIOLOGY**
Marta Wozniak-Karczewska¹, Grzegorz Framski², Daniel Baranowski², Monika Cvancarová³, Philippe F. X. Corvini³ and Lukasz Chrzanowski¹
¹ Institute of Chemical Technology and Engineering, Poznan University of Technology, Poznan, Poland
² Polish Academy of Sciences, Poznan, Poland
³ Institute for Copreneurship, School of Life Sciences, FNNW, Muttenz, Switzerland

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

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

17:00 - 17:45	Coffee break & Poster Viewing (Section B)
17:45 - 18:30	PLENARY LECTURE #4 – ROOM A Chairpersons: Philippe Corvini & Nicolas Kalogerakis
ID 164	BRIDGE BETWEEN PHYSICOCHEMICAL TREATMENT AND BIOREMEDIATION: SOIL WASHING Professor Jong Moon Park <i>Dept. of Chemical Engineering, School of Environmental Science and Engineering, Pohang University of Science and Technology, South Korea</i>
18:30 - 20:30	SESSION – 5A: BIOREMEDIATION OF CHLORINATED COMPOUNDS – ROOM A Chairpersons: Cajthaml Tomáš & Katerina Demnerova
ID 138	IN-SITU ELECTROBIOREMEDIATION OF SOIL POLLUTED WITH ORGANO-CHLORINATED COMPOUNDS Silvia Barba, Mireya Carvela, José Villaseñor, Manuel A. Rodrigo and Pablo Cañizares Chemical Engineering Dept, Research Institute for Chemical and Environmental Technologies (ITQUIMA), University of Castilla La Mancha, Ciudad Real, Spain
ID 223	PERCHLOROETHENE DEGRADATION BY COMBINING <i>DEHALOCOCCOIDES</i> WITH ZEROVALENT IRON – TOXIC AND SYNERGISTIC EFFECTS Dorothea Summer, Philipp Schöftner; Bernhard Wimmer and <u>Thomas G. Reichenauer</u> AIT Austrian Institute of Technology, Center for Energy, Austria
ID 193	RHIZOSPHERE MICROBIAL COMMUNITY OF POPLAR PLANTS INVOLVED IN PCB PHYTO-ASSISTED BIOREMEDIATION <u>Anna Barra Caracciolo</u>¹, Paola Grenni¹, Martina Cardoni¹, Martina Di Lenola¹, Claudia Campanale², Gian Luigi Garbini¹, Giorgia Aimola², V. Felice Uricchio², M. Fernandez Lopez³ and Valeria Ancona² ¹ National Research Council, Water Research Institute, Monterotondo (RM), Italy ² National Research Council, Water Research Institute, Bari (BA), Italy ³ Consejo Superior de Investigaciones Científicas (CSIC) Zaidin Experimental Station, Granada, Spain
ID 242	A NEW PROCESS FOR THE <i>IN SITU</i> REMEDIATION OF AGED LOW-K DNAPL SOURCE ZONE BY ENHANCED MOBILIZATION AND BIOREMEDIATION <u>Marco Petrangeli Papini</u>¹, Mauro Majone¹, Lucia Pierro¹, Marco Sagliaschi², Salvatore Sucato², Eduard Alesi³, Ernst Bartsch³, Simona Rossetti⁴ and Bruna Matturro⁴ ¹ University of Rome “La Sapienza”, Italy ² SERSYS AMBIENTE S.r.l., Torino, Italy ³ IEG Technologie GmbH, Gruibingen, Germany ⁴ IRSA- CNR, Monterotondo, Italy
ID 332	PCB BIODEGRADATION BY PLEUROTUS OSTREATUS: FROM LABORATORY TO REAL APPLICATIONS <u>Cajthaml Tomáš</u>^{1,2}, Šrédlová Kamila^{1,2}, Linhartová Lucie^{1,2}, Tatiana Stella³ and Odřej Lhotský⁴ ¹ Institute of Microbiology, Czech Academy of Sciences, Prague 4, Czech Republic ² Institute for Environmental Studies, Faculty of Science, Charles University, Prague 2, Czech Republic ³ Dept of Earth and Environmental Sciences (DISAT), University of Milano, Milano, Italy ⁴ DEKONTA a.s., Prague 5, Czech Republic
ID 334	OCCURRENCE OF GENES RESPONSIBLE FOR PCDDs/Fs REMOVAL FROM SOIL AND THEIR TRANSLOCATION TO ABOVEGROUND PARTS OF CUCURBITS <u>Magdalena Urbaniak</u>^{1,2}, I. Gałala¹, Anna Wyrwicka³, E. Mierzejewska² and Marek Zieliński⁴ ¹ European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Lodz, Poland ² Dept of Applied Ecology, Faculty of Biology and Environmental Protection, University of Lodz, Lodz, Poland ³ Dept of Plant Physiology and Biochemistry, University of Lodz, Lodz, Poland ⁴ Nofer Institute of Occupational Medicine, Lodz, Poland
ID 346	BIOREMEDIATION OF SOILS CONTAMINATED WITH TOXAPHENE: MICROCOSMS AND PILOT SCALE STUDY <u>Ziv Arbeli</u>, Angelica Rojas, Ivan Prieto, Johan Saenz, Fabio Roldan Unidad de Saneamiento y Biotecnología Ambiental (USBA), Departamento de Biología, Facultad de Ciencias, Pontificia Universidad Javeriana, Bogotá D.C., Colombia

18:30 - 19:30		SESSION -5B-I: MATHEMATICAL MODELLING OF BIOREMEDIATION PROCESSES – ROOM B Chairpersons: Katerina Spanoudaki & George Kapellos
ID 101	TOOLS FOR THE CALCULATION OF BIOREMEDIATION TIMES <u>Thomas Held</u> Arcadis Germany GmbH, Germany	
ID 129	FLOW AND REACTIVE TRANSPORT MODELLING OF A SITE CONTAMINATED WITH CHLORINATED HYDROCARBONS INCLUDING THE TRANSITION ZONE BETWEEN GROUND- AND SURFACE WATER <u>Sonja Schröter, Wilfried Schneider and Hanna Kim</u> Institute of water resources and water supply, Hamburg University of Technology, Germany	
ID 131	EXPERIMENTAL DESIGN TO ASSESS THE DEGRADATION OF PETROLIZED WASTE IN THE BIO-PILE ECO-TECHNOLOGY <u>David Javier Castro Rodríguez, Omar Gutiérrez Benítez, Orlando Viera Ribot, José Reynol Poma Rodríguez, Dayana Rabassa Rabasa and Enmanuel Casals Pérez</u> Centre of Environmental Studies of Cienfuegos, Cuba	
ID 396	MATHEMATICAL MODELLING OF DEEP SEA OIL SPILLS INCORPORATING BIODEGRADATION KINETICS OF OIL DROPLETS <u>Katerina Spanoudaki¹ and Nicolas Kalogerakis²</u> ¹ Institute of Applied and Computational Mathematics, FORTH, Heraklion, Crete, Greece ² School of Environmental Engineering, Technical University of Crete, Chania, Greece	
19:30 - 20:30		SESSION -5B-II: BIOREMEDIATION OF HEAVY METALS – ROOM B Chairpersons: Anna Potysz & Ioannis Ignatiadis
ID 317	BIOREMEDIATION OF HEXAVALENT CHROMIUM BY METHANE OXIDISING BACTERIA <u>Salaheldeen Enbaia, Philip H. E. Gardiner and Thomas J. Smith</u> Biomolecular Sciences Research Centre, Sheffield Hallam University, Sheffield, UK	
ID 286	EVALUATION OF TOXICITY OF Cr(VI) ON CHROMIUM RESISTANT BACTERIUM <i>Bacillus clausii</i> CRA-1 BY FLOW CYTOMETRY <u>Aishvarya Gautam and Radha Rani</u> Dept of Biotechnology, Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh, India.	
ID 201	SELENIUM VOLATILIZATION BY <i>Pseudomonas.sp</i> AND ITS POTENTIAL IN BIOREMEDIATION AND RESOURCE RECOVERY <u>Ying Liu^{1,2}, Andreas Schäffer² and Markus Lenz¹</u> ¹ Institute for Ecopreneurship, School of Life Sciences, FHNW, Switzerland ² Institute for Environmental Research (Biology V), RWTH Aachen University, Germany	
ID 351	BIOMONITORING OF DIATOMS AS SENSITIVE INDICATORS OF HEAVY METALS POLLUTION <u>Lusine Hambaryan^{1,2}</u> ¹ Institute of Hydroecology and Ichthyology of the Scientific Centre of Zoology and Hydroecology of NAS, Republic of Armenia ² Department of Ecology, Yerevan State University, Republic of Armenia	
ID 282	PHYTOEXTRACTION OF CADMIUM IN AGRICULTURAL LAND USING BAST FIBRE CROPS IN SOUTHERN CHINA <u>Yuan Guo, Hui Wang, Caisheng Qiu, Songhua Long, Dongmei Hao and Yufu Wang</u> Institute of Bast Fiber Crops and Center of Southern Economic Crops, Chinese Academy of Agricultural Sciences, China	
18:30 - 20:30		SESSION – 5C: BIOREACTOR TECHNOLOGIES FOR EX-SITU REMEDIATION – ROOM C Chairpersons: Mohamed Blaghen & Simona Di Gregorio
ID 230 (Keynote)	THE BIORESNOVA PROJECT: BIO-TECHNOLOGIES AND SMART PROCESS-ENGINEERING FOR THE RECOVERY AND VALORISATION OF CONTAMINATED SOILS AND SEDIMENTS <u>Simona Di Gregorio</u> Department of Biology, University of Pisa, Italy	
ID 276	POROUS MEDIA ANAEROBIC BIOREACTORS FOR BIOREMEDIATION OF BTEX-CONTAMINATED GROUNDWATER <u>John H. Pardue, Leslie Pipkin and Vijaikrishnah Elango</u> Dept of Civil & Environmental Engineering, Louisiana State University, USA	

- ID 263** **EXOPOLYSACCHARIDES (EPS) AND BIOSURFACTANTS PRODUCTION AND ACTIVITY FROM SOME MOROCCAN BACTERIA AS AFFECTED BY DIFFERENT CONDITIONS**
Y.D. Dah Dossounon, Ikram. Kamal, and Mohamed Blaghen
 Lab of Microbiology, Pharmacology, Biotechnology and Environment, Faculty of Sciences Ain-Chock, Casablanca, Morocco
- ID 307** **LANDFILL LEACHATE TREATMENT USING WHITE-ROT FUNGI IN ATTACHED FORM**
Alessandra Bardi¹, Qiuyan Yuan², Mofizul Islam², Giovanna Siracusa³, Ilaria Chicca³, Francesco Spennati¹, Valeria Tigni⁴, Simona Di Gregorio³, David B. Levin⁵, Giulio Petroni¹ and Giulio Munz¹
¹ Dept. of Civil and Environmental Engineering, University of Florence, Florence, Italy
² Dept. of Civil Engineering, Univ. of Manitoba, Winnipeg, Canada;
³ Dept. of Biology, University of Pisa, Italy
⁴ Dept. of Life Sciences and Systems Biology, University of Turin, Torino, Italy
⁵ Dept. of Biosystems Engineering, University of Manitoba, Winnipeg, Canada
- ID 340** **REMOVAL OF PESTICIDES IN BIOPURIFICATION SYSTEMS: RECENT ADVANCES ON THE EFFECTS OF CO-DISPOSAL OF ANTIBIOTIC-CONTAINING WASTEWATER**
Carlos E. Rodríguez-Rodríguez, Humberto Castillo-González, Alejandra Huete-Soto, Juan Carlos Cambrono-Heinrichs, Marta Pérez-Villanueva, Erika Fernández-Fernández, Susana Briceño-Guevara, Juan Salvador Chin-Pampillo, V. Castro-Gutiérrez and Mario Masís-Mora
 Centro de Investigación en Contaminación Ambiental, Universidad de Costa Rica (UCR), San José, Costa Rica
- ID 326** **EFFECTS OF CILIATES AND ROTIFERS ON FUNGAL DEGRADATION OF NATURAL TANNINS: BATCH EXPERIMENTS WITH TARA AND QUEBRACHO**
Cristiana Sigona¹, Alessandra Bardi², Francesco Spennati², Ylenia Ciummei¹, Alexey Potekhin³, Gualtiero Mori⁴, Simona Di Gregorio¹, Franco Verni¹, Giulio Munz² and Giulio Petroni¹
¹Dept. of Biology, University of Pisa, Pisa, Italy
²Dept. of Civil and Environmental engineering, University of Florence, Florence, Italy
³ Dept. of Biology, Saint.-Petersburg State University, Saint Petersburg, Russia
⁴CER2CO (Centro Ricerca Reflui Conciari), San Romano-San Miniato, Pisa, Italy
- ID 328** **BIOTECHNOLOGICAL REMOVAL OF Cr(VI) BY USING A MICROBIAL FUEL CELL (MFC) AND A PARTITIONED SEQUENCING BATCH REACTOR (SBR)**
George Marios Lytras¹, Dimitra Chatzikonstantinou¹, Asimina Tremouli¹, Konstantina Papadopoulou¹ and Gerasimos Lyberatos^{1,2}
¹School of Chemical Engineering, National Technical University of Athens, Athens, Greece
²Institute of Chemical Engineering Sciences (ICE-HT), Platani, Patras, Greece

WEDNESDAY, JUNE 27TH, 2018

8:30 - 9:15 **PLENARY LECTURE #5 – ROOM A**

Session Chairpersons: Nicolas Kalogerakis & Fabio Fava

ID 189 **ECOLOGICAL CONCEPTS FOR ANAEROBIC DEGRADATION OF AROMATIC HYDROCARBONS IN GROUNDWATER AND OIL RESERVOIRS**

Professor Rainer U. Meckenstock

University of Duisburg –Essen, Biofilm Center, Germany

9:15- 10:45 **SESSION – 6A: WATER FOR AFRICA (EU projects overview) - ROOM A**
Chairpersons: Giulio Pattanaro and Dario Frascari

Intro-duction **Africa and the EU joining forces to tackle water-related R&I challenges: achievements and expected impacts of ongoing H2020 projects.**

Giulio Pattanaro

European Commission, Executive Agency for SMEs (EASME), Unit B.2 H2020 Environment and Resources

ID 375 **BUILDING THE AFRICA-EU INNOVATION ALLIANCE FOR WATER AND CLIMATE**

Uta Wehn and Gaetano Casale

IHE Delft Institute for Water Education, the Netherlands

ID 376 **FLOWERED PROJECT FOR THE DEVELOPMENT OF A SUSTAINABLE WATER MANAGEMENT SYSTEM IN AFRICAN AREAS AFFECTED BY FLUORIDE CONTAMINATION.**

G. Ghiglieri¹ and the FLOWERED Consortium²

¹ University of Cagliari, Department of Chemical and Geological Sciences, Italy ² www.floweredproject.org

ID 224 **WASTEWATER TREATMENT AND EFFICIENT AGRICULTURAL REUSE IN EGYPT, MOROCCO AND TUNISIA: THE MADFORWATER PROJECT**

Dario Frascari and Giulio Zanaroli

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

09:15 - 10:45 **SESSION – 6B: MICROALGAE APPLICATIONS – ROOM B**
Chairpersons: Joan Garcia & Dimosthenis Sarigiannis

ID 256 **TREATMENT OF STILLAGE AND PRODUCTION OF *Chlorococcum* sp. RICH IN CARBOHYDRATES WITHIN A BIOREFINERY**

(keynote) **Eugenia J. Olguín, Sandra Báez, Anilú Mendoza, V. J. Hernández, and R. E. González-Portela**

Environmental Biotechnology Group, Institute of Ecology, Mexico

ID 279 **BIOPRODUCTS FROM WASTEWATER: DESIGN AND OPERATION OF A NEW HYBRID PHOTOBIOREACTOR**

Joan Garcia, Enrica Uggetti and M. Jesús García-Galán

GEMMA-Group of Environmental Engineering and Microbiology, Dept of Hydraulic, Maritime and Environmental Engineering, Universitat Politècnica de Catalunya BarcelonaTech, Barcelona, Spain

ID 133 **ANNUAL PERFORMANCE OF HECTARE-SCALE WASTEWATER TREATMENT HIGH RATE ALGAL PONDS IN TEMPERATE NEW ZEALAND**

Rupert Craggs¹, Jason Park¹, Stephan Heubeck¹ and Donna Sutherland²

¹ National Institute of Water and Atmospheric Research, Hamilton, New Zealand

² Golders Ltd, Christchurch, New Zealand

ID 119 **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 381 **MICROALGAE BIOREACTORS FOR BIOGAS POLISHING AND PRODUCTION OF HIGH QUALITY FERMENTATION SUBSTRATES**

Sarigiannis Dimosthenis^{1,2}, Vassou Michalis¹, Gypakis Antonios³ and Zarkadas Ioannis¹

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 Technology, Ministry of Education, Res. and Rel. Affairs, Greece

09:15 - 10:45 SESSION - 6C: IN-SITU BIOREMEDIATION – ROOM C

Chairpersons: Jochen Borris & Vicenç Martí Gregorio

- ID 310** **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 200** **NANO-BIO REMEDIATION: A COMBINATION OF NZVI PARTICLES AND CARBOXYMETHYL CELLULOSE ENHANCED BY ELECTRIC FIELD**
Vojtech Stejskal^{1,2}, Kristýna Marková¹, J. Nosek¹, Miroslav Černík¹; Petr Kvapil² and Jaroslav 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 204** **STUDY OF THE ELIMINATION OF PHOSPHATE AND NITRATE IN WATER BY USING IRON OXIDES NANOPARTICLES OBTAINED BY TOP TO DOWN APPROACH**
Vicenç Martí^{1,2}, José Antonio Benito¹, Irene Jubany², David Ribas², Rosanna Margalef-Martí³, Raul Carrey³, Neus Otero^{3,4} and Albert 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 159** **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 Tánicsics¹
¹ Regional University Centre of Excellence in Environmental Industry, Szent István University, Hungary
² Department of Environmental Safety and Ecotoxicology, Szent István University, Hungary
- ID 182** **REVEALING THE ROLE OF GLUCOSINOLATES IN PLANT DEFENSE RESPONSES AGAINST POLLUTION STRESS**
Mariam Betsiashvili¹, Christine Weber², Stefanie Bank² and Ulrike Holzgrabe²
¹ Genebank, Agricultural University of Georgia, Tbilisi, Georgia
² Institute of Pharmacy and Food Chemistry, University of Wuerzburg, Wuerzburg, Germany
- ID 212** **COMPLEX APPROACH TO BIOREMEDIATION OF SOILS CONTAMINATED WITH ORGANIC CHEMICALS**
Galina K. Vasiljeva
Institute of Physicochemical and Biological Problems in Soil Science RAS, Pushchino State Institute of Natural Science, Pushchino, Moscow region, Russia

09:15 - 10:45 SESSION – 6D: WASTEWATER TREATMENT – ROOM D

Chairpersons: Levantesi Caterina & Jungbae Kim

- ID 322** **HIGH SALINITY EFFECT ON THE METHANOGENIC MICROBIAL PERFORMANCE TREATING LEATHER PICKLING WASTEWATER**
Joana Cassidy, B. Oliveira, Catarina S.S. Oliveira, C. Henriques, E. Freitas, Maria A.M. Reis
UCIBIO, REQUIMTE, Depto de Química, Universidade Nova de Lisboa, Caparica, Portugal
- ID 345** **EFFECT OF REACTIVE BARRIERS FOR ARTIFICIAL AQUIFER RECHARGE ON THE PERSISTENCE OF NON-INDIGENOUS MICROORGANISMS OF HEALTH CONCERN AND ANTIBIOTIC RESISTANCE GENES**
Luprano Maria Laura¹, Stefano Amalfitano¹, Zoppini Annamaria¹, Maurizio Petruccioli², Marco Melita¹, Cristina Valhondo³, Jesus Carrera³ and Levantesi Caterina¹
¹ Water Research Institute National Research Council, Rome Italy
² Dept for Innovation in Biological, Agro-food and Forest systems, University of Tuscia, Viterbo, Italy
³ GHS (UPC-CSIC), Dept Geosciences, IDAEA, CSIC, Barcelona, Spain
- ID 368** **COMPARISON OF TWO AND ONE STAGE ANAEROBIC DIGESTERS FOR TREATMENT OF SLAUGHTERHOUSE WASTEWATERS**
A. Spyridonidis^{1,2}, S. Antonoudis¹, C. Kivraki¹ and K. Stamatelatou^{1,2}
¹ Dept of Environmental Engineering, Democritus University of Thrace, Xanthi, Greece
² INVALOR: Research Infrastructure for Waste Valorization and Sustainable Management, Patras, Greece

ID 243	<p>OLIVE MILL WASTEWATER VALORIZATION THROUGH POLYPHENOL ADSORPTION AND SUBSEQUENT ANAEROBIC DIGESTION Giorgia Rubertelli¹, Dario Frascari¹, Alessandro Ragini¹, Annarosa Sannino¹, Giacomo Tripodi¹, Atef Jaouani² and Davide Pinelli¹ ¹Dept. of Civil, Chemical, Environmental and Materials Engineering, University of Bologna, Italy ²Institut Supérieur des Sciences Biologiques Appliquées de Tunis, Université de Tunis El Manar, Tunisia</p>
ID 180	<p>EFFECT OF AERATION ON RECLAIMED WASTEWATER QUALITY IMPROVEMENT AND CLOGGING PREVENTION Hajar Benlouali¹, I. Karmal², M. Fallah², M.C. Harrouni¹, M. Hamdani² and R. Choukrallah¹ ¹Hassan II Institute of Agronomy and Veterinary Medicine, Agadir, Morocco ²Ibn Zohr University, Faculty of Science, Agadir, Morocco</p>
10:45 - 11:15 Coffee break & Poster Viewing (Section B)	
11:15 - 13:15 SESSION – 7A: WATER FOR AFRICA (EU PROJECTS OVERVIEW) – ROOM A Chairpersons: Giulio Pattanaro and Giulio Zanaroli	
ID 190	<p>SELF-SUSTAINING CLEANING TECHNOLOGY FOR SAFE WATER SUPPLY AND MANAGEMENT IN RURAL AFRICAN AREAS –SAFE WATER AFRICA- Lothar Schäfer¹, Jochen Borris¹ and Bob Bond² ¹Fraunhofer Institute for Surface Engineering and Thin Films IST, Braunschweig, Germany ²Tshwane University of Technology, Pretoria, South Africa</p>
ID 191	<p>INTERGRATED AQUACULTURED BASED ON SUSTAINABLE WATER RECIRCULATING SYSTEM FOR THE VICTORIA LAKE BASIN (VICINAQUA) Julian Mamo¹, Kyra Hoevenaars¹, Ephraim Gukelberger², Saadia Bouhadjar², Paw Petersen³, Susan Claire Adhiambo⁴, Joyce Okwara⁴, Robert Kinyua⁵ and Jan Hoinkis² ¹AquaBioTech Group, Mosta, Malta ²Institute for Applied Research (IAF), Karlsruhe, Germany ³OxyGuard Intl. A/S, Farum, Denmark ⁴Dept of Agriculture livestock and fisheries, Kisumu, Kenya ⁵Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi, Kenya</p>
ID 106	<p>THE WATERSPOUTT PROJECT: THE CHALLENGES OF TRANSDISCIPLINARITY G. Honor Fagan Social Science Institute Maynooth University (MUSSI), Co. Kildare, Ireland</p>
ID 392	<p>DAFNE: A DECISION ANALYTIC FRAMEWORK TO EXPLORE THE WATER-ENERGY-FOOD NEXUS IN AFRICAN TRANSBOUNDARY RIVER BASINS Paolo Burlando¹, Imasiku Nyambe², Dinis Juizo³, Eric Odada⁴, Gete Zeleke⁵, Jos Van Orshoven⁶, Scott Sinclair¹, Phoebe Koundouri⁷, Andrea Castelletti⁸, Caroline van Bers⁹, Jasminko Novak¹⁰ ¹Institute of Environmental Engineering, ETH Zurich, Switzerland ²Integrated Water Resources Management Centre, University of Zambia, Lusaka, Zambia ³Dept of Civil Engineering, Eduardo Modiane University, Maputo, Mozambique ⁴African Collaboration Centre for Earth Science Systems, University of Nairobi, Kenya ⁵Water and Land Resources Center, Addis Ababa, Ethiopia ⁶Dept of Earth and Environmental Sciences, KU Leuven, Belgium ⁷School of Economics, Athens University of Economics and Business, Athens, Greece ⁸Dept of Electronics, Information, and Bioengineering, Politecnico di Milano, Italy ⁹Institute of Environmental Systems Research, Osnabrück University, Germany ¹⁰European Institute for Participatory Media, Berlin, Germany</p>
11:15 - 13:15 SESSION – 7B: MICROALGAE APPLICATIONS – ROOM B Chairpersons: Eugenia J. Olguín & Edgardo Filippone	
ID 280	<p>REMOVAL OF PESTICIDES AND PRIORITY ORGANIC POLLUTANTS DURING MICROALGAE-BASED WASTEWATER TREATMENT M. Jesús García-Galán[*], Enrica Uggetti¹, Luis S. Monllor-Alcaraz², M. Silvia Díaz-Cruz², Miren López de Alda², Joan Garcia¹ and Damià Barceló² ¹GEMMA-Group of Environmental Engineering and Microbiology, Dept of Hydraulic, Maritime and Environmental Engineering, Universitat Politècnica de Catalunya BarcelonaTech, Barcelona, Spain ²Dept of Environmental Chemistry, IDAEA-CSIC, Barcelona, Spain</p>
ID 287	<p>BIOENERGETICS AS A TOOL TO MONITOR ENVIRONMENT RESTORATION-PHENOL BIODEGRADATION BY PHOTOSYNTHETIC MICROALGAE Theocharis Nazos, Emmanouel Kokarakis, Eleni Poloniataki, Gerasimos Theodoros Mastrokalos, Malamatenia Papavasileiou and Demetrios Ghanotakis Dept of Chemistry, University of Crete, Heraklion, Crete, Greece</p>

ID 160	LAB-SCALE TESTING OF OPERATION PARAMETERS FOR ALGAE BASED TREATMENT OF PIGGERY WASTEWATER <u>Francesca Marazzi</u>¹, Micol Bellucci², R. Fornaroli¹, Elena Ficara² and Valeria Mezzanotte¹ ¹ DISAT, Università degli studi di Milano-Bicocca, Italy ² DICA Politecnico di Milano, Italy
ID 145	POLYMERS PRODUCTION FROM CYANOBACTERIA CULTIVATED IN WASTEWATER: CURRENT STATUS, CHALLENGES AND FUTURE DIRECTIONS <u>Dulce María Arias</u>, Enrica Uggetti, Maria Jesus García and Joan García Dept of Civil and Environmental Eng, Universitat Politècnica de Catalunya·BarcelonaTech, Barcelona, Spain
ID 215	DISINFECTION IN LAB-SCALE PHOTOBIOREACTORS FOR WASTEWATER TERTIARY TREATMENT <u>Micol Bellucci</u>¹, Francesca Marazzi², Luca Stefano Naddeo², Luciano Beneduce³, Elena Ficara¹ and Valeria Mezzanotte² ¹ Dept of Civil and Environmental Engineering, Technical University of Milan, Italy ² DISAT, University of Milan-Bicocca, Italy ³ Dept of the Science of Agriculture, Food and Environment, University of Foggia, Italy
ID 125	WASTEWATER TREATMENT PROCESS USING MICROALGAE TO OBTAIN RECLAIMED WATER, BIODIESEL AND ADDED VALUE PRODUCTS <u>Carioca, J.O.B.</u>¹, Macambira, S.², Almeida, H. G.³, Bermudez, V²; Galdino E¹; Oliveira, E.¹, Monteiro, R.¹ and Gomes, R.B.² ¹ Federal University of Ceara - UFC ² Science and Technology Federal Institute of Ceara - IFCE ³ Ceara State Water and Swage Company
11:15 - 13:15 SESSION – 7C: IN-SITU BIOREMEDIATION – ROOM C Chairpersons: Roberto de Philippis & Agnese Lai	
ID 330	REHABILITATION OF ARID SOILS BY INOCULATING EXOPOLYSACCHARIDE-PRODUCING CYANOBACTERIA <u>Sonia Chamizo</u>, Gianmarco Mugnai, Federico Rossi, Andrea Simiani, Alessandra Adessi and Roberto De Philippis Dept of Agrifood Production and Environmental Sciences (DISPAA), Florence University, Italy
ID 311	ANAEROBIC DEGRADATION OF DIESEL CONTAMINATED GROUNDWATER: IDENTIFICATION OF THE COMPONENTS AND REMODELLING THE SYSTEM <u>Krisztián Laczi</u>¹, Attila Bodor^{1, 2}, Ágnes Erdeiné Kis^{1,2,3}, Naila Bounedjoun^{1,2}, Katalin Perei^{1,2}, Tamás Kovács⁴ and Gábor Rákhely^{1,2,3} ¹ Dept of Biotechnology, Faculty of Science and Informatics; University of Szeged ² Institute of Environmental and Technological Sciences, University of Szeged ³ Institute of Biophysics, Biological Research Centre, Hungarian Academy of Sciences, Szeged ⁴ Dept of Biotechnology, Nanophageotherapy Center, Enviroinvest Corp., Pécs, Hungary
ID 350	MICROBIAL ELECTROLYSIS CELL: TESTS FOR HEXAVALENT CHROMIUM REDUCTION FROM WATER <u>Gabriele Beretta</u>, Andrea Mastorgio, <u>Lisa Pedrali</u>, Sabrina Saponaro and Elena Sezenna Politecnico di Milano, DICA - Environmental section, Milano, Italy
ID 289	CHROMIUM (VI) REDUCTION UNDER ELECTRO-ASSISTED REDUCTIVE DECHLORINATION CONDITIONS BY DECHLORINATING CONSORTIUM <u>Agnese Lai</u>, Marialuisa Astolfi, Silvia Canepari, Marco Zeppilli and Mauro Majone Dept of Chemistry, Sapienza University of Rome, Rome, Italy
ID 220	SOIL AND VEGETABLES CONTAMINATION BY HEAVY METALS GENERATED BY ROAD TRAFFIC DENSITY NEAR BEJAIA DISTRICT - ALGERIA <u>El hacene Balla</u>¹, Atmane Allouache², Thiziri Ayad³ and Hanane Hatou³ ¹ Dépt de tronc commun. Université Abderrahmane Mira de Bejaia, Targa ouzemmour, Bejaia ² Faculté de Technologie, Université Abderrahmane Mira de Bejaia, Targa ouzemmour, Bejaia ³ Dépt de sciences biologiques et environnementales. Université Abderrahmane Mira de Bejaia, Bejaia
ID 207	APPLICATION OF PHYTO-FENTON PROCESS TO POPs-CONTAMINATED SOIL <u>Rei Sasaki</u>¹, Y. Sakakibara¹, Vo Huu Cong², Dinh Trinh Tran³, Nhung Dao Thi³ and Hieu Minh Dang⁴ ¹ Dept. of Civil and Environmental Engineering, Waseda University, Japan ² Dept. of Environmental Management, Vietnam National University of Agriculture, Vietnam ³ Faculty of Chemistry, Vietnam National University of Science, Vietnam ⁴ School of Biotechnology and Food Technology, Hanoi University of Science and Technology, Vietnam

ID 151	REACTIVE BIO-BARRIER FOR REMEDIATION OF VOC BY INDIGENOUS BACTERIA ISOLATED FROM OIL INDUSTRIAL AREA IN TEHRAN, IRAN <u>Kamal Khodaei</u>¹, <u>Hamid Reza Nasseri</u>² and <u>Hadi Tabani</u>¹ ¹ Research Institute of Applied Sciences, ACECR, Shahid Beheshti University, Tehran, Iran ² Faculty of Earth Sciences, Shahid Beheshti University, Tehran, Iran
11:15 - 13:15 SESSION – 7D: WASTEWATER TREATMENT – ROOM D	
Chairpersons: Davide Pinelli & Danae Venieri	
ID 285	REMOVAL OF COD AND TOXICITY FROM OLD AND YOUNG LEACHATES BY MYCOREMEDIATION WITH ASCOMYCETES <u>Giovanna Siracusa</u>¹, <u>Iaria Chicca</u>¹, <u>Simone Becarelli</u>^{1,2}, <u>Alessandra Bardi</u>¹, <u>Francesco Spennati</u>³, <u>Qiuyan Yuan</u>⁴, <u>Giulio Munz</u>³ and <u>Simona Di Gregorio</u>¹ ¹ University of Pisa, Department of Biology, Pisa, Italy ² BD BioDigressioni srl, Pisa, Italy ³ University of Florence, Firenze, Italy ⁴ University of Manitoba, Winnipeg (MB), Canada
ID 195	START-UP OF A NOVEL URBAN WASTEWATER TREATMENT PLANT AT PILOT SCALE USING ANAMMOX-BASED PROCESS AT MAINSTREAM CONDITIONS <u>Carlos Ramos</u>¹, <u>Maria Eugenia Suárez-Ojeda</u>¹, <u>Javier Claros</u>², <u>Laura Pastor</u>², <u>Julio Pérez</u>¹ and <u>Julián Carrera</u>¹ ¹ GENOCOV Research Group. Dept of Chemical, Biological and Environmental Engineering, Universitat Autònoma de Barcelona, Barcelona, Spain ² Depuración de Aguas del Mediterráneo (DAM), Parque Tecnológico, 46980 Paterna, Valencia, Spain
ID 173	(BIO)RECOVERY OF METALS AND RARE EARTH ELEMENTS FROM METALLURGICAL WASTES USING VARIOUS CHEMICAL AGENTS <u>Anna Potysz</u>¹, <u>Sebastian Hedwig</u>² and <u>Markus Lenz</u>² ¹ Institute of Geological Sciences, University of Wrocław, Poland ² Institute for Ecopreneurship, School of Life Sciences, FHNW, Muttensz, Switzerland
ID 171	RECOVERY OF FLOATING BIOMASS FROM FREE WATER SURFACE BASINS: MODELING FOR OPTIMIZATION AND SUSTAINABILITY <u>Carmine Fiorentino</u>¹, <u>Sara Zanni</u>², <u>Maurizio Luca Mancini</u>¹ and <u>Alessandra Bonoli</u>¹ ¹ Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy ² Interdept. Centre for Industrial Research, Energy and Environment – CIRI EA, University of Bologna, Italy
ID 294	NITRITE INHIBITION ON PHOSPHORUS UPTAKE RATE: THE EFFECT OF pH <u>Dimitris Andreadakis</u>, <u>Gerasimos Fragkiskatos</u>, <u>Kyriaki Argyropoulou</u>, <u>Constantinos Noutsopoulos</u>, <u>Simos Malamis</u> and <u>Daniel Mamais</u> Sanitary Engineering Laboratory, Dept of Water Resources and Environmental Engineering, School of Civil Engineering, National Technical University of Athens, Athens, Greece
ID 319	MATURITY AND UTILIZATION OF SEWAGE SLUDGE IN AGRICULTURE AFTER TWO BIOTREATMENTS <u>Desislava Angelova</u> and <u>Stefan Shilev</u> Dept. of Microbiology and environmental biotechnologies, Agricultural university – Plovdiv, Bulgaria
ID 373	NUTRIENT TRANSFORMING BACTERIAL COMMUNITIES IN URBAN SEQUENTIAL SEDIMENTATION-BIOFILTRATION SYSTEMS <u>Arnoldo Font Najera</u>^{1,2}, <u>Liliana Serwecińska</u>¹ and <u>Joanna Mankiewicz-Boczek</u>^{1,2} ¹ European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Łódź, Poland. ² Dept of Applied Ecology, Institute of Ecology and Environmental Protection, Univ. of Lodz, Łódź, Poland
13:15 – 18:45	WEDNESDAY AFTERNOON - FREE TIME
13:15 - 15:00	EFB - Environmental Biotechnology Section meeting (Room B)
13:15 – 15:00	WATER FOR AFRICA (Coordinators meeting, Room C)
20:00 - 00:30	Conference GALA DINNER Location: KTIMA REVELI (Busses leave at 18:45 from the venue hotel)

THURSDAY, JUNE 28TH, 2018

8:30 - 9:15 **PLENARY LECTURE #6 – ROOM A**

Session Chairpersons: Eugenia J. Olguín & Nicolas Kalogerakis

ID 390

WASTE-BASED BIOREFINERY TO CONVERT ORGANIC WASTE INTO BIOPLASTICS AND MORE: A SHORT SURVEY ON THREE H2020 PROJECTS
Prof. Mauro Majone

Department of Chemistry, University of Rome La Sapienza, Rome, Italy

9:15 - 10:45

SESSION – 8A: WATER FOR AFRICA (TECHNOLOGIES, POLICIES) - ROOM A
Chairpersons: Atef Jaouani & Sara Borin

ID 105

THE WATERSPOUTT PROJECT: SOLAR TECHNOLOGIES FOR WATER TREATMENT IN SUB-SAHARAN AFRICA

Kevin G. McGuigan

Dept. of Physiology and Medical Physics, Royal College of Surgeons in Ireland (RCSI), Dublin, Ireland

ID 108

THE WATERSPOUTT PROJECT: SOLAR RAINWATER REACTORS FOR WATER DISINFECTION

P. Fernandez-Ibañez¹, M.I. Polo-Lopez², M. Domingos³, M.J. Abeledo-Lameiro⁴, A. Reboredo-Fernández⁴, E. Ares-Mazás⁴ and H. Gomez-Couso^{4,5}

¹ Nanotechnology and Integrated BioEngineering Centre, School of Engineering, University of Ulster, UK

² Plataforma Solar de Almería-CIEMAT, Almería, Spain.

³ Lab of Chemical Sciences, Universidade Estadual do Norte Fluminense Darcy Ribeiro, Brazil.

⁴ Lab of Parasitology, Dept of Microbiology and Parasitology, Univ. of Santiago de Compostela, A Coruña, Spain

⁵ Institute of Food Research and Analysis, Univ. of Santiago de Compostela, A Coruña, Spain.

ID 161

AFRICAN-EUROPEAN AUTONOMOUS WATER TREATMENT SYSTEM FOR RURAL AREAS

Lothar Schäfer¹, Wendy Stone², Robert J. Bond³, Philippus Fouché⁴, Patrick Hlabela⁵, Thorsten Mattheé⁶, Manuel A. R. Rodrigo⁷, P. Verlicchi⁸, Achille De Battisti⁹, C. Viola¹⁰ and Jac Wilsenach¹¹

¹ Fraunhofer Institute for Surface Engineering and Thin Films IST, Braunschweig, Germany

² Stellenbosch University, Stellenbosch, South Africa ³ Tshwane University of Technology, Pretoria, S. Africa

⁴ Advance Call (Pty) Ltd, Pretoria, South Africa ⁵ Council for Scientific and Industrial Research CSIR, Pretoria, South Africa ⁶ Condias GmbH, Itzehoe, Germany ⁷ University of Castilla La Mancha, Ciudad Real, Spain

⁸ Università degli Studi di Ferrara, Ferrara, Italy ⁹ Gate srl, Ferrara, Italy ¹⁰ Salomon Lda, Maputo, Mozambique

¹¹ Virtual Consulting Engineers (Pty) Ltd, Pretoria, South Africa

ID 327

MULTISTAGE STOCHASTIC DIFFERENTIAL GAMES IN TRANSBOUNDARY WATER SHARING

Phoebe Koundouri^{1,4}, Nikolaos Englezos^{2,4} and Xanthi-Isidora Kartala^{3,4}

¹ ReSEES Laboratory, School of Economics, Athens University of Economics and Business, Greece

² Dept. of Banking and Financial Management, University of Piraeus, Piraeus, Greece

³ Dept. of Statistics, Athens University of Economics and Business, Athens, Greece

⁴ International Center for Research on the Environmental and the Economy (ICRE8), Athens, Greece

ID 115

SELECTION AND APPLICATION OF A STABLE BACTERIAL CONSORTIUM ISOLATED FROM SEQUENCING BATCH REACTOR FOR TREATMENT OF PHENOLICS-RICH WASTEWATER

Fatma Arous¹, Chadlia Hamdi¹, Souhir Kmiha¹, Nadia Khammassi¹, Amani Ayari¹, Mohamed Neifar², Tahar Mechichi³ and Atef Jaouani¹

¹ Lab of Microorganisms and Active Biomolecules, University of Tunis El Manar, Tunisia

² University of Manouba, ISBST, Ariana, Tunisia

³ Lab de Biochimie et de Genie Enzymatique des Lipases, ENIS, Sfax, Tunisia

ID 181

COMBINED PROCESSES FOR EFFECTIVE REMOVAL OF FUNGICIDES FROM WASTEWATER

Monika Čvančarová¹, Jan Svojitka¹, Federica Bonacci¹, Thomas Wintgens¹, Nicolas Kalogerakis², Danae Venieri², Markus Lenz¹, and Philippe F.-X. Corvini^{1,3}

¹ Institute for Ecopreneurship, School of Life Sciences, FHNW, Muttensz, Switzerland

² School of Environmental Engineering, Technical University of Crete, Chania, Greece

³ State Key Laboratory of Pollution Control and Resource Reuse, Nanjing University, Xianlin, China

09:15-10:45		SESSION – 8B: BIOREACTOR TECHNOLOGIES FOR EX-SITU REMEDIATION – ROOM B	
		Chairpersons: Petros Gikas & Carlos Ramos	
ID 166	MOVING BED BIOFILM REACTOR (MBBR) AS PRETREATMENT FOR WATER RECYCLING IN THE PETROCHEMICAL INDUSTRY	Judit Ribera¹, Marina Badia¹, Carme Bosch¹, Irene Jubany¹, Aritz Santamaria², Gorka Zalakain², Elisenda Taberna², Joan Sanz², David Arias³, V. Gómez³ and Xavier Martínez-Lladó¹	
		¹ Fundació CTM Centre Tecnològic, Spain ² Veolia Water Technologies Ibérica, Spain	
		³ Dow Water and Process Solutions, Spain	
ID 114	A PERMEABLE MACRO-ENCAPSULATION OF <i>P. PUTIDA</i> ACHIEVES EFFECTIVE BIODEGRADATION IN BATCH/CONTINUOUS BIOREACTOR	Eyal Kurzbaum¹, Yasmin Raizner¹ and Ofir Menashe^{2,3}	
		¹ Shamir Research Institute, University of Haifa, P.O.B. 97, Qatzrin, Israel.	
		² Water Industries Engineering Dept, Achi Racov Eng. School, Kinneret College on the Sea of Galilee, Israel.	
		³ BioCastle Water Technologies Ltd., Israel.	
ID 172	MICROBIAL SYNTHESIS OF IRON NANOPARTICLES BY <i>Geobacter metallireducens</i>. EFFECTS OF MICROBIAL GROWTH PROCEDURE ON NANOPARTICLES COMPOSITION	Emmanouella Remoundaki, Artin Hatzikioseyan, Petros Tsakiridis, Stella Savvopoulou, Pavlina Kousi and Marios Tsezos	
		School of Mining and Metallurgical Engineering, Lab of Environmental Science and Engineering, National Technical University of Athens, Athens, Greece	
ID 185	BIOLOGICAL OXIDATION OF CHOLINE-BASED IONIC LIQUIDS BY SEQUENCING BATCH REACTORS	Ismael F. Mena, Brandon J. Leal, Elena Diaz, Juan J. Rodriguez and Angel F. Mohedano	
		Chemical Engineering Section, University Autónoma de Madrid, Madrid, Spain	
ID 358	SEARCHING FOR AIR-CATHODE MICROBIAL DESALINATION CELLS OPTIMAL NICHE FOR PRODUCTION OF DRINKING WATER	Martí Aliaguilla¹, Pau Bosch-Jimenez¹, Victoria Miles¹, Marta Juan y Seva¹, Patricia Zamora², Víctor Monsalvo², Ruediger Schweiss³, Almut Schwenke³, Maarten Meijlink⁴, Abdulsalam Alhadidi⁴, Pau Ródenas⁵, Juan Manuel Ortíz⁵ and Eduard Borràs¹	
		¹ LEITAT Technological Center, C/ de la Innovació, 2, Terrassa (Barcelona), Spain	
		² Aqualia, Innovation and Technology Department, Av. del Camino de Santiago 40, Madrid, Spain	
		³ SGL Carbon GmbH, Werner-von-Siemens-Strasse 18, D-86405 Meitingen, Germany	
		⁴ Fujifilm Manufacturing Europe B.V. P.O. Box 90156, 5000 LJ Tilburg, The Netherlands	
		⁵ IMDEA Water Institute, Av. Punto Com, 2, Alcalá de Henares (Madrid), Spain	
09:15-10:45		SESSION - 8C: WASTE BIOREFINERIES & CIRCULAR ECONOMY - ROOM C	
		Chairpersons: Gerasimos Lyberatos and Lorenzo Bertin	
ID 391	INVALOR – NATIONAL RESEARCH INFRASTRUCTURE FOR WASTE VALORIZATION AND SUSTAINABLE MANAGEMENT OF RESOURCES	George Angelopoulos^{1,2}, Ioannis Kookos^{1,2}, Dionissios Mantzavinos^{1,2}, Constantina Marazioti^{1,2}, Angeliki Christogerou^{1,2} and Christos Tatsiopoulos^{1,2}	
		¹ Department of Chemical Engineering, University of Patras, Patras, Greece	
		² INVALOR: Research Infrastructure for Waste Valorization and Sustainable Management, Patras, Greece	
ID 266	BIOREFINERY SCHEME FOR THE PRODUCTION OF PHAs FROM A CONCENTRATED STREAM OF VFAs OBTAINED BY THE ACIDOGENIC FERMENTATION OF CHEESE WHEY	Salvatore Puccio¹, Joana M. B. Domingos¹, Gonzalo A. Martinez¹, Sarah Notarfrancesco¹, Serena Bandini¹, Maria A. M. Reis², Fabio Fava¹ and Lorenzo Bertin^{1,3}	
		¹ Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy	
		² Dept of Chemistry, UCIBIO-Requimte, New University of Lisbon, Caparica, Portugal	
		³ IAMAW – International Association of Mediterranean Agro-Industrial Wastes	
ID 250	PRODUCTIVITY OPTIMISATION OF A PILOT SCALE PROCESS FOR BIOCONVERSION OF FRUIT WASTE INTO PHA USING MMCs	Mariana Matos, Rafaela Cruz, Pedro Cardoso, Fernando Silva, Gilda Carvalho and Maria A.M. Reis	
		UCIBIO – REQUIMTE, Dep. de Química, Universidade Nova de Lisboa, Caparica, Portugal	

ID 214	FOREST INDUSTRY WASTE VALORISATION THROUGH MICROBIAL PROCESSES FOR PHA PRODUCTION: A BIOREFINERY APPROACH <u>André Freches</u> and Paulo C. Lemos LAQV-REQUIMTE – Chemistry Department, Universidade NOVA de Lisboa, Portugal
ID 303	BIOELECTROCHEMICAL ACETATE PRODUCTION THROUGH METHANOGENS INHIBITION via THERMAL TREATMENT <u>Marco Zeppilli</u>, Laura Scardigno, Marianna Villano and Mauro Majone Dept of Chemistry University of Rome Sapienza, Rome, Italy
ID 397	SELECTIVE FRACTIONATION AND CONVERSION OF BIOMASS VIA THERMOCHEMICAL AND (BIO)CATALYTIC PROCESSES <u>Konstantinos Triantafyllidis</u>^{1,2}, Antigoni Margellou¹, Christos Nitsos¹, P. Lazaridis¹ and Evi Mitsiakou¹ ¹ Dept of Chemistry, Aristotle University of Thessaloniki, Greece ² INVALOR: Research Infrastructure for Waste Valorization and Sustainable Management, Patras, Greece
10:45-11:15 Coffee break & Poster Viewing (Section B)	
11:15-13:15 SESSION - 9A: WATER FOR AFRICA (TECHNOLOGIES, POLICIES) – ROOM A Chairpersons: Nicola Lamaddalena & Philippe Ker Rault	
ID 226	EXPLORATION OF PLANT GROWTH PROMOTING BACTERIA FOR SUSTAINABLE AGRICULTURE IN ARID AND SEMI-ARID AREAS <u>Sara Borin</u>¹, Francesca Mapelli¹, Valentina Riva¹, Giovanna Dragonetti², Ameer Cherif³, Hanen Cherif³, Bilel Bejaoui³, Redouane Choukr-Allah⁴, Nicola Lamaddalena² ¹ University of Milan, DeFENS, Italy ² CIHEAM-Mediterranean Agronomic Institute of Bari, Bari, Italy ³ Univ. Manouba, ISBST, Sidi Thabet, Tunisia ⁴ Hassan II Institut Agronomique et Veterinaire Morocco
ID 245	USE OF DEFICIT IRRIGATION STRATEGIES ON ‘Orogrande’ CLEMENTINE IN THE SOUSS REGION OF MOROCCO: EFFECT ON FRUIT GROWTH, YIELD AND QUALITY <u>Mohamed El-Otmani</u>, Charif Azrof, Anouar Chouaibi and Redouane Choukrallah Dept of Horticulture, Institut Agronomique et Vétérinaire Hassan II, Agadir, Morocco
ID 302	REENGINEERING THE QUATERNARY IRRIGATION CANALS IN EGYPT TO ENHANCE DISTRIBUTION EFFICIENCY AND WATER QUALITY R. Khadra¹, <u>Nicola Lamaddalena</u>¹, Mohamed Abd El-Motaleb², C. Rolland³ and A. Daccache⁴ ¹ CIHEAM—Mediterranean Agronomic Institute of Bari, Bari, Italy ² National Water Resource Center, Egypt ³ ROLLAND Arroseurs/Sprinklers, Mognard, France ⁴ University of California, Davis, USA
ID 306	THE ROLE OF WATER MANAGEMENT IN FOOD SECURITY AND SOCIOECONOMIC DEVELOPMENT. EVIDENCE FROM THE MENA REGION <u>Blanco-Gutiérrez, I.</u>, <u>Suárez-Varela, M.</u>, Varela-Ortega, C. and Esteve, P. Dept of Agricultural Economics and Social Sciences. Universidad Politécnica de Madrid. Madrid, Spain
ID 175	EFFECT OF IRRIGATION WITH RECLAIMED WASTEWATER UNDER TWO SYSTEMS AND REGIME DOSES ON SWEET CORN <u>Chour-Allah Redouane</u>, Afaf belabhir, Hajar Benlouali, M. Cherif Harrouni and M. El-Otmani Hassan II Institute of Agronomy and Veterinary Medicine, Agadir, Morocco
ID 374	FLOWERED PROJECT: WATER DE-FLUORIDATION - DISSEMINATION ACTIVITIES <u>Mohamedou Baba Sy</u>¹, Lilia Benzid¹, G. Ghiglieri², Maria Teresa Melis² and Francesco Dessi² ¹ Sahara and Sahel Observatory, Italy ² Università Degli Studi di Cagliari, Italy
ID 380	WASTEWATER REUSE FOR IRRIGATION – UNCONVENTIONAL OR UN-WELCOME RESOURCE? LOCAL PERCEPTIONS ON BARRIERS AND DRIVERS FOR REUSE IN EGYPT, MOROCCO AND TUNISIA <u>P.A. Ker Rault</u>¹ A. El-din Abdin², R. Choukr-Allah³, A. Jaouani⁴, F. Chenini⁵ and D. Frascari⁶ ¹ Wageningen Environmental Research, The Netherlands ² National Water Research Center, Egypt ³ Hassan II Institut of Agronomy and Veterinary Medecine, Morocco ⁴ University of Tunis El Manar, Tunisia ⁵ Food and Agriculture Organisation of UN – Regional office for near East and North Africa, Egypt ⁶ University of Bologna, Italy
11:15-13:15 SESSION -9B: ASSESSING LONG TERM ENVIRONMENTAL IMPACTS: THE ROLE OF OBSERVATORY SCIENCE – ROOM B Chairpersons: Nikolaos Nikolaidis & Maria Kanakidou	
ID 339	LONG-TERM ATMOSPHERIC RESEARCH AT THE FINOKALIA ENVIRONMENTAL RESEARCH OBSERVATORY Nikolaos Mihalopoulos^{1,2}, Nikos Kalivitis^{1,3}, Giorgos Kouvarakis¹ and <u>Maria Kanakidou</u>¹

	<p>¹ Environmental Chemical Processes Laboratory, Chemistry Department, University of Crete ² National Observatory of Athens, Institute for Environmental Research and Sustainable Development ³ National Observatory of Athens, Institute for Astronomy Astrophysics Space Applications and Remote Sensing</p>
ID 315	<p>LTER-GREECE: THE LONG-TERM ECOSYSTEM RESEARCH NETWORK OF GREECE <u>Nikolaos P. Nikolaidis</u>¹, <u>Maria Mimikou</u>², <u>Nikolaos Mihalopoulos</u>³, <u>Andreas Panagopoulos</u>⁴, <u>Theodora Petanidou</u>⁵, <u>Georgios Maneas</u>⁶, <u>Nikolaos Skoulikidis</u>⁷ and <u>Petros Lyberakis</u>⁸</p> <p>¹ School of Environmental Engineering, Technical University of Crete, Chania, Greece ² School of Civil Engineering, National Technical University of Athens, Greece ³ Dept. of Chemistry, University of Crete, Greece ⁴ Soil and Water Resources institute, Hellenic Agriculture Organisation, Greece ⁵ Dept. of Geography, University of Aegean, Greece ⁶ Navarino Environmental Observatory, Greece ⁷ National Centre for Marine Research, Greece ⁸ Samaria National Park, Greece</p>
ID 316	<p>ESTABLISHING LONG-TERM ECOLOGICAL RESEARCH INFRASTRUCTURE AT THE RIVER PINIOS HYDROLOGIC OBSERVATORY <u>Vassilios Pisinaras</u>¹, <u>F. Herrmann</u>², <u>Andreas Panagopoulos</u>¹, <u>A. Ragkos</u>³ and <u>Frank Wendland</u>²</p> <p>¹ Soil and Water Resources Institute, Hellenic Agricultural Research Organisation, Greece ² Agrosphere Institute, Forschungszentrum Jülich, Germany ³ Agricultural Economics Research Institute, Hellenic Agricultural Research Organisation, Greece</p>
ID 314	<p>LONG-TERM ECOSYSTEM RESEARCH AT THE KOILIARIS CRITICAL ZONE OBSERVATORY <u>Sofia Nerantzaki</u>, <u>Dionissios Efstathiou</u> and <u>Nikolaos P. Nikolaidis</u></p> <p>School of Environmental Engineering, Technical University of Crete, Chania, Greece</p>
ID 140	<p>ENVIRONMENTAL RISK ASSESSMENT OF SOIL CONTAMINATION BY TRACE ELEMENTS AROUND OPEN MINE AND TAILING DUMP OF THE AKHTALA ORE PROCESSING COMBINE <u>Ghazaryan Karen</u>¹ and <u>Khachatryan Hrant</u>²</p> <p>¹ Chair of Ecology and Nature Protection, Faculty of Biology, Yerevan State University, Republic of Armenia ² Ministry of Education and Science of RA, Armenian National Agrarian University, Yerevan, Rep. of Armenia</p>
ID 277	<p>ASSESSING LONG TERM ENVIRONMENTAL IMPACTS: THE ROLE OF OBSERVATORY SCIENCE. THE CASE OF NAVARINO ENVIRONMENTAL OBSERVATORY (NEO), MESSINIA, GREECE <u>Giorgos Maneas</u>^{1,2}, <u>Karin Holmgren</u>¹, <u>Håkan Berg</u>², <u>Georgia Destouni</u>^{1,2}, <u>E. Gerasopoulos</u>^{1,5}, <u>HC Hansson</u>⁶, <u>V. Karakousis</u>^{1,4}, <u>Radovan Krejci</u>⁶, <u>S. Manzoni</u>², <u>M. Papatsoni</u>^{1,4} and <u>C. Zerefos</u>^{1,3}</p> <p>¹ Navarino Environmental Observatory (NEO), Messinia, Greece ² Dept of Physical Geography, Stockholm University (SU), Sweden ³ Biomedical Research Foundation of the Academy of Athens (BRFAA), Academy of Athens, Greece ⁴ Touristic Developments of Messinia (TEMES), Greece ⁵ Institute for Environ. Research and Sustainable Development, National Observatory of Athens (NOA), Greece ⁶ Dept of Environmental Science and Analytical Chemistry (ACES), Stockholm University, Sweden</p>
11:15-13:15	<p>SESSION - 9C: WASTE BIOREFINARIES & CIRCULAR ECONOMY – ROOM C Chairpersons: Christos Tatsiopoulos and Antonis Gypakis</p>
ID 158	<p>ECOTOXICITY EVALUATION OF SOIL CONDITIONED WITH FOAMING PRODUCTS BY A BIOASSAY BATTERY <u>Anna Barra Caracciolo</u>¹, <u>Paola Grenni</u>¹, <u>Emanuela Galli</u>², <u>Jasmine Rauseo</u>¹, <u>Nicoletta Ademollo</u>¹, <u>Maria Ludovica Saccà</u>¹, <u>Maria Teresa Palumbo</u>³, <u>Valerio Giorgio Muzzini</u>², <u>Enrica Donati</u>⁴, <u>Ines Lacchetti</u>⁵, <u>Anita Di Giulio</u>⁶, <u>Paola M. B. Gucci</u>⁵, <u>Eleonora Beccaloni</u>⁵ and <u>Luisa Patrolecco</u>¹</p> <p>¹ IRSA-CNR, Monterotondo, Rome, Italy ² IBAF-CNR, Monterotondo, Rome, Italy ³ IRSA-CNR, Monza-Brianza, Italy ⁴ IMC-CNR, Monterotondo, Rome, Italy ⁵ ISS – Environmental and Health Department, Rome, Italy ⁶ IGAG-CNR, Monterotondo, Rome, Italy</p>
ID 252	<p>WETWINE PROJECT- WINERY WASTEWATER VALORISATION SYSTEM BASED ON CONSTRUCTED WETLANDS <u>Alfonso Ribas</u>¹, <u>Rocio Pena</u>², <u>Daniel Durán</u>³ and <u>M^a Carmen Saborido</u>¹</p> <p>¹ Ingacal, Sergude, Boqueixón, A Coruña, Spain ² Aimen, Polígono Industrial De Cataboi Sur- O Porriño, Spain ³ Feuga, Campus Vida, 15705 - Santiago De Compostela, Spain</p>

ID 370	PRODUCTION OF LIPIDS FROM IMMOBILIZED MICROALGAE (<i>Stichococcus</i> sp.) GROWING ON WINERY WASTEWATER Vasiliki Ariadni Axaopoulou, Haris Marakas, Nicolas Kalogerakis and Petros Gikas School of Environmental Engineering, Technical University of Crete, Chania, Greece
ID 382	BIOMETHANE POTENTIAL DETERMINANTS OF DIFFERENT AGRO INDUSTRIAL SUBSTRATES Sarigiannis Dimosthenis^{1,2}, Kaldis Fokion¹ and Zarkadas Ioannis¹ ¹ Environmental Engineering Lab, Dept of Chemical Engineering, Aristotle University of Thessaloniki, Greece ² Environmental and Sanitary Engineering, Institute for Advanced Study (IUSS), Pavia, Italy
ID 219	PRODUCTION OF KERATINASE BY <i>Bacillus atrophaeus</i> BN2 Nawel Boucherba¹, Houria Sadou¹, Naïma Mechmeche¹, Samir Hama¹, Amel Bouanane-Darenfed², Azzedine Bettache¹, Khelifa Bouacem², Cilia Bouiche¹ and Rima Maibeche¹ ¹ Lab of Applied Microbiology, Faculty of Nature Science and Life, University of Bejaia, Bejaia, Algeria ² Lab of Cellular and Molecular Biology, Univ. of Sciences and Techn. of Houari Boumediene, Algiers, Algeria
ID 347	WASTE PRODUCTS FROM POULTRY INDUSTRY: THE SOURCE OF HIGH VALUE DIETARY SUPPLEMENTS Hana Stiborova¹, Petr Kastanek², Olga Kronusova^{1,2}, Monika Jíru³, Jan Poustka³ and Katerina Demnerova¹ ¹ UCT Prague, Dept of Biochemistry and Microbiology, Prague 6, Czech Republic ² EcoFuel Laboratories s.r.o., Prague 9, Czech Republic ³ UCT Prague, Department of Food Analysis and Nutrition, Prague 6, Czech Republic
ID 104	USING RICE STRAW AS FEEDSTOCK FOR PRODUCING FUELS AND BIOBASED CHEMICALS: A VIABLE OPTION FOR STRAW DISPOSAL Anju Arora¹, Preeti Nandal¹ and Shalley Sharma¹ ¹ Division of Microbiology, Indian Agricultural Research Institute, New Delhi, 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**

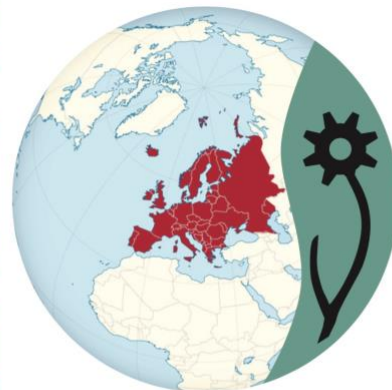
FRIDAY, JUNE 29TH, 2018

08:00-18:00 **Conference trip**
 (St Irene's Gorge or Rethymno old-city tour)
 Please indicate your preference at registration

Conference Programme

(as of May 31, 2018)

EBC-VII



ISEB-2018

Joint conference
June 25-28, Chania, Greece

POSTER PRESENTATIONS

POSTER SECTION A

(Presentation Period: Monday 10:30 to Tuesday 14:10)

IN SITU REMEDIATION OF CONTAMINATED SOILS & GROUNDWATER

- ID 134** **DIAGNOSTIC OF MANGROVE AREA CONTAMINATED BY FUEL OIL SPILL, TO CARRY OUT IN SITU BIOREMEDIATION WORK**
Dayana Rabassa Rabassa¹, Orlando Manuel Viera Ribot¹, David Javier Castro Rodríguez¹, Omar Gutiérrez Benítez¹, José Reynol Poma Rodríguez¹, Eudalys Ortiz Guilarte², Roberto Núñez Moreira² and Angel Rodriguez Quesada³
¹ Centre of Environmental Studies of Cienfuegos, Cuba ² Institute of Marine Sciences, Cuba
³ Oil Refinery "Camilo Cienfuegos" of Cienfuegos, Cuba
- ID 265** **BACTERIAL INOCULATION AFFECTS PLANT GROWTH AND BIOAVAILABILITY OF ORGANIC CONTAMINANTS IN BOTTOM SEDIMENT CONTAMINATED SOILS**
Sylwia Siebielec¹, Grzegorz Siebielec¹, Magdalena Urbaniak², B. Smreczak¹ and Petra Kidd³
¹ Institute of Soil Science and Plant Cultivation – State Research Institute, Puławy, Poland
² European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Łódź, Poland
³ CSIC, Santiago de Compostella, Spain
- ID 403** **VISUALIZATION OF IN SITU REMEDIATION BY-PRODUCTS USING μ -CT IMAGING**
Georgina C. Kalogerakis and Brent E. Sleep
Dept. of Civil and Mineral Engineering, University of Toronto, Canada

EX SITU REMEDIATION OF CONTAMINATED SOILS & GROUNDWATER

ID 112 PREFERENTIAL TISSUE ACCUMULATION AND SYNCHROTRON-BASED EVIDENCE OF CU BIOTRANSFORMATION IN COWPEA GROWN ON COPPER NANOPARTICLES-AMENDED SOIL

Clement O. Ogunkunle^{1,2}, Benjamin Bornmann², Ralph Wagner², Paul O. Fatoba¹, Ronald Frahm¹ and Dirk Lützenkirchen-Hecht²

¹Environmental Biology Unit, Department of Plant Biology, University of Ilorin, Ilorin, Nigeria

² Faculty 4 - Physics department, Bergische Universität Wuppertal, Wuppertal, Germany

ID 132 BIO-PILES ECO-TECHNOLOGY FOR THE TREATMENT OF SOILS AND SOLID WASTE WITH HYDROCARBONS IN CUBA

Omar Gutiérrez Benítez¹, David Javier Castro Rodríguez¹, Orlando Manuel Viera Ribot¹, José Reynol Poma Rodríguez¹, Dayana Rabassa Rabassa¹, Enmanuel Casals Pérez¹, Regla María Alomá Oramas¹, R. Yvelice Sibello Hernández¹, E. Ortíz Guilarte², Roberto Núñez Moreira² and Y. Bernal Carrazana³

¹ Centre of Environmental Studies of Cienfuegos, Cuba ² Institute of Marine Sciences, Cuba

³ Soil Research Institute, Cienfuegos, Cuba

ID 174 METAL RELEASE AS THE RESULT OF METALLURGICAL SLAGS WEATHERING IN THE LITTER ZONE

Anna Potysz¹, Artur Pędziwiatr², Sebastian Hedwig³ and Markus Lenz³

¹ Institute of Geological Sciences, University of Wrocław, Poland

² Institute of Soil Sciences and Environ. Protection, Wrocław Univ. of Environ. and Life Sciences, Poland

³ Institute for Ecopreneurship, School of Life Sciences, FHNW, Switzerland

ID 177 CHARACTERIZATION OF THE RESULTING SUBSTRATUM OF THE TREATED OILY MUDS AT THE FUEL OIL COMMERCIALIZATION ENTERPRISE FROM VILLA CLARA, CUBA

David Javier Castro Rodríguez¹, José Reinol Poma¹, Jelvys Bermúdez Acosta¹, Magdalena Rodríguez² and Hortensia Pérez²

¹ Centre of Environmental Studies of Cienfuegos, Cuba ² Fuel Distributor Enterprise of Villa Clara, Cuba

ID 178 HAZARDOUS WASTE MANAGEMENT PLAN FOR THE SEMI-PILOT SCALE BIOPILES ECOTECHNOLOGY

Enmanuel Casals Pérez, Regla María Aloma Pérez, Dayana Rabassa Rabasa, David J. Castro Rodríguez, Omar Gutiérrez Benítez and Orlando M. Viera Ribot

Center for Environmental Studies of Cienfuegos, Cuba

ID 213 ACCELERATED BIOREMEDIATION OF PETROLEUM-CONTAMINATED SOILS AT PRESENCE OF NATURAL ADSORBENTS

Zinnatshina L.V.^{1,2}, Kondrashina V.S.¹, Strijakova E.R.¹, Vasilyeva G.K.^{1,2}

¹ Institute of Physicochemical and Biological Problems in Soil Science RAS

² Pushchino State Institute of Natural Science, Pushchino, Moscow region, Russia

ID 270 BIODEGRADATION OF PHENANTHRENE AND PYRENE BY TWO FUNGAL STRAINS ISOLATED FROM PAH *IN VITRO* CULTURE

Liliana Reynoso-Cuevas^{1,2}, Arturo Salinas-Martínez³, S. Roussos⁴ and M. Gutiérrez-Rojas¹

¹ Biotechnology Department, Universidad Autónoma Metropolitana-Iztapalapa, México

² Cátedras-CONACYT Researcher at CIMAV-Durango, México

³ Agroindustrial Engineering, Universidad Politécnica de Guanajuato, México

⁴ Institut Méditerranéen de Biodiversité et d'Ecologie Marine et Continentale, France

ID 338 BENZO(a)PYRENE BIODEGRADATION BY BACTERIAL CANDIDATE *Paenibacillus* sp HD1PAH AND *Arthrobacter nicotianae* HD2PAH

Hemen Deka¹, Jiumoni Lahkar² and Jyotismita Das³

¹ Department of Botany, Gauhati University, Guwahati, Assam, India

² CSIR-North East Institute of Science & Technology, Jorhat, Assam, India

³ Department of Zoology, Nowgong College, Nagaon, Assam, India

BIOREMEDIATION OF SITES CONTAMINATED WITH CRUDE OIL, PETROCHEMICALS AND PAHs

ID 146 THE IDENTIFICATION AND POTENTIAL EXPLOITATION OF XENOMETABOLIC GENES IN *Aspergillus* FUNGI

Haley P. Stein¹, Ulises Conejo-Saucedo¹, Dario Rafael Olicon-Hernandez¹, Alfonso Rodriguez-Calvo, Rafael Navajas², Jesus Gonzalez-Lopez¹, Elisabet Aranda¹

ID 148	<p>¹ Institute of Water Research, University of Granada, Granada, Spain ² Department of Genetics, University of Granada. Campus de Fuentenueva, Granada, Spain</p> <p>AIR PASSIVE DOSING OF TOLUENE INCREASES ACCESSIBILITY OF PAHs FOR MICROBIAL DEGRADATION</p> <p>Stefan Humel¹, Catherine Zaknun¹, Philipp Mayer² and <u>Andreas P Loibner¹</u></p>
ID 297	<p>¹ Institute of Environmental Biotechnology, BOKU Univ. of Natural Resources and Life Sciences, Austria ² Department of Environmental Engineering, Technical University of Denmark, Denmark</p> <p>IMPACT OF OOMYCETE MYCELIA ON DEGRADATION OF LIPOPHILIC XENOBIOTICS</p> <p><u>Blanka Vrchotová¹</u>, Veronika Horáková¹, Gabriela Kuncová² and Petra Lovecká¹</p>
ID 169	<p>¹ Dept of biochemistry and microbiology, University of Chemistry and Technology, Prague 6, Czech Republic ² Institute of Chemical Process Fundamentals of the CAS , Prague 6, Czech Republic</p> <p>THE IMPACT OF GROWTH CONDITIONS ON THE RHAMNOLIPIDS PROFILE IN <i>P. aeruginosa</i> SPECIES FROM DEAD BIRDS</p> <p><u>Marta Wozniak-Karczewska¹</u>, Kamila Myszká², Alicja Szulc¹, Agnieszka Zgola-Grzeskowiak³, Dorota Formanowicz⁴ and Lukasz Chrzanowski¹</p>
ID 312	<p>¹ Institute of Chemical Technology and Engineering, Poznan University of Technology, Poznan, Poland ² Dept of Biotechnology and Food Microbiology, University of Life Sciences in Poznan, Poznan, Poland ³ Institute of Chemistry, Poznan University of Technology, Poznan, Poland ⁴ Dept of Clinical Biochemistry and Laboratory Medicine, Poznan University of Medical Sciences, Poland</p> <p>MICROBIAL TOLERANCE TO ORGANIC SOLVENTS</p> <p>Attila Bodor^{1,2}, Andrea Pintér¹, Ágnes Erdeiné Kis^{1,2,3}, Krisztián Laczi³, Katalin Perei^{1,2} and <u>Gábor Rákhely^{1,2,3}</u></p>
ID 313	<p>¹ Department of Biotechnology, University of Szeged, Hungary ² Institute of Environmental and Technological Sciences, University of Szeged, Hungary ³ Institute of Biophysics, Biological Research Centre, Szeged, Hungary</p> <p>REHABILITATION OF A RAILWAY STATION AREA POLLUTED WITH USED LUBRICATING OILS (ULOs): A CASE STUDY</p> <p>Attila Bodor^{1,2}, Péter Petrovszki¹, Naila Bounedjoun^{1,2}, Ágnes Erdeiné Kis^{1,2,3}, <u>Krisztián Laczi²</u>, <u>Gábor Rákhely^{1,2,3}</u> and Katalin Perei^{1,2}</p>
ID 321	<p>¹ Department of Biotechnology, University of Szeged, Hungary ² Institute of Environmental and Technological Sciences, University of Szeged, Hungary ³ Institute of Biophysics, Biological Research Centre, Szeged, Hungary</p> <p>BACTERIAL KEY PLAYERS IN THE BIODEGRADATION OF 4-RING POLYCYCLIC AROMATIC COMPOUNDS IN POLLUTED SOILS</p> <p><u>Sara N. Jiménez Volkerink¹</u>, Joaquim Vila² and Magdalena Grifoll¹</p>
ID 325	<p>¹ Dept. of Genetics, Microbiology and Statistics, Faculty of Biology, University of Barcelona, Spain ² Institute of Natural Resources and Agrobiology (IRNAS-CSIC), Sevilla, Spain</p> <p>DEGRADATION OF DIESEL/BIODIESEL BLENDS IN SOIL – EFFECT OF BIOAUGMENTATION</p> <p>Marta Woźniak-Karczewska¹, Paweł Cyplik², Hermann J. Heipieper³ and <u>Lukasz Chrzanowski¹</u></p>
ID 342	<p>¹ Institute of Chemical Technology and Engineering, Poznan University of Technology, Poznań, Poland ² Department of Biotechnology and Food Microbiology, Poznan University of Life Sciences, Poznań, Poland ³ Helmholtz Centre for Environmental Research – UFZ, Dept of Environ. Biotechnology, Leipzig, Germany</p> <p>BIODEGRADATION OF Oxy-PACs AND N-PACs DURING ENHANCED NATURAL ATTENUATION OF A CREOSOTE-POLLUTED SOIL</p> <p>Sara N. Jiménez Volkerink¹, Margalida Tauler¹, Joaquim Vila² and <u>Magdalena Grifoll¹</u></p>
ID 343	<p>¹ Dept. of Genetics, Microbiology and Statistics, Faculty of Biology, University of Barcelona, Spain ² Institute of Natural Resources and Agrobiology (IRNAS-CSIC), Sevilla, Spain</p> <p>COMPOST APPLICATION IN THE BIOREMEDIATION OF AN INDUSTRIAL SOIL POLLUTED WITH PETROLEUM HYDROCARBONS (DRO) AND HEAVY METALS</p> <p>Adriana N. Villamarín¹, Sara N. Jiménez-Volkerink¹, Marçal Bosch² and <u>Magdalena Grifoll¹</u></p>
ID 422	<p>¹ Dept. of Genetics, Microbiology and Statistics, Faculty of Biology, University of Barcelona, Spain ² Litoclean SL, Barcelona, Spain</p> <p>FLOATING LAYER REMOVAL, A NECESSITY FOR A SUCCESSFUL PHYTOREMEDIATION OF FUEL-OIL CONTAMINATION</p> <p><u>Peter Smeets</u> and Panagiotis Gkorezis</p>
	<p>PSMT - Environmental Technologies, Lommel, Belgium</p>

BIOREMEDIATION OF SITES CONTAMINATED WITH CHLORINATED AND OTHER RECALCITRANT COMPOUNDS

- ID 199** **BIOREMEDIATION OF CHC: COMPARATIVE PILOT APPLICATION OF SODIUM LACTATE AND GLYCEROL-BASIS SUBSTRATE**
Vojtech Stejskal^{1,2}, Petr Kvapil² and Tomáš Lederer¹
¹ Department of nanomaterials in natural sciences, Technical University of Liberec, Czech Republic
² Photon Water Technology s.r.o., Czech Republic
- ID 228** **RHIZOREMEDIATION OF A HISTORICAL PCB POLLUTED SOIL: PLANT-DRIVEN BIOSTIMULATION OF THE SOIL MICROBIOME**
Lorenzo Vergani¹, Francesca Mapelli¹, Elisa Terzaghi², Giuseppe Raspa³, Ondrej Uhlík⁴, Elisabetta Zanardini², Cristiana Morosini², Antonio Di Guardo² and Sara Borin¹
¹ Dept of Food, Environmental and Nutritional Sciences, University of Milan, Milan, Italy
² Dept of Science and High Technology, University of Insubria, Como, Italy
³ Dept of Chemical Engineering, Materials, and Environment, "La Sapienza University", Rome, Italy
⁴ Dept of Biochemistry and Microbiology, University of Chemistry and Technology, Prague, Czech Republic
- ID 236** **MICROBIAL DIVERSITY IN A CHLORINATED-SOLVENT CONTAMINATED SAMPLE IN A PETRO-CHEMICAL AREA IN SICILY**
Maria Genovese¹, Renata Denaro¹, Maurizio Catalfamo¹, Alfonso Modica², Manlio Rossini² and Simone Cappello¹
¹ Institute for Coastal Marine Environment (IAMC), CNR of Messina, Italy
² Syndial, Servizi Ambientali S.p.A, Priolo Gargallo (Siracusa), Italy
- ID 249** **GREEN REMEDIATION OF A PCB POLLUTED SOIL BY POPLAR ASSISTED BIOREMEDIATION**
Valeria Ancona¹, Paola Grenni², Claudia Campanale¹, Anna Barra Caracciolo², Martina Cardoni², Giorgia Aimola¹, Martina Di Lenola², Giuseppe Bagnuolo¹, Giuseppe Mascolo¹ and Vito Felice Uricchio¹
¹ National Research Council, Water Research Institute, Bari (BA), Italy
² National Research Council, Water Research Institute, Monterotondo (RM), Italy
- ID 251** **ADSORPTION OF CHLORINATED SOLVENTS AND HEAVY METALS ONTO LOW-COST MATERIALS (BIOCHARS) IN GROUNDWATER REMEDIATION**
Marta M. Rossi¹, Neda Amanat¹, Angela Hady¹, Elisabetta Marconi¹, Maria Luisa Astolfi¹, Ludovica Silvani² and Marco Petrangeli Papini¹
¹ Department of Chemistry, University of La Sapienza, Italy
² Norwegian Geotechnical Institute (NGI), Ullevaal, Oslo, Norway
- ID 257** **DECHLORINATION CAPABILITIES AND DIVERSITY OF REDUCTIVE DEHALOGENASES GENES OF A MARINE ORGANOHALIDE-RESPIRING CONSORTIUM**
Marco Rocca, Andrea Nuzzo, Fabio Fava and Giulio Zanaroli
Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy
- ID 304** **PESTICIDE BIOREMEDIATION POTENTIAL OF RHIZOBACTERIA**
Wafa Hassen¹, Mohamed Neifar¹, Hanene Cherif¹, Afef Najjari², Habib Chouchane¹, Rim Driouich Chaouachi¹, Fatma Naili¹, Amor Mosbah¹, Yasmine Souissi¹, Noura Raddadi³, Hadda Imen Ouzari², Fabio Fava³ and Ameer Cherif¹
¹ Univ. Manouba, ISBST, BVBGR, Biotechpole Sidi Thabet, Ariana, Tunisia
² MBA-LR03ES03, FST, University of Tunis El Manar, Campus Universitaire, Tunis, Tunisia
³ Dept of Civil, Chemical, Environmental and Materials Engineering (DICAM), University of Bologna, Italy
- ID 406** **TEST ON POPLAR CLONE MONVISO GROWING IN A HISTORICALLY PCB CONTAMINATED SOIL**
L. Passatore¹, A. Barra Caracciolo², M. Di Lenola², P. Grenni², I. Nogues¹, E. Guerriero³, P. Benedetti³ and A. Massacci¹
¹ National Research Council, Institute of Agro-Environmental and Forest Biology (IBAF-CNR), Rome, Italy
² National Research Council, Water Research Institute (IRSA-CNR), Rome, Italy
³ National Research Council, Institute of Atmospheric Pollution Research (IIA-CNR), Rome, Italy

BIOREMEDIATION OF EMERGING CONTAMINANTS

- ID 202** **EVALUATION AND OPTIMISATION OF BIODEGRADATION OF PHARMACEUTICAL MICRO-POLLUTANTS (IBUPROFEN)**
Anna Pettineo^{1,2}, Maria Genovese¹, Lucrezia Genovese¹, Giovanni Pioggia³, Santina Santisi^{1,3}, Giuseppe Mancini⁴ and Simone Cappello¹

	<p>¹ Institute for Coastal Marine Environment (IAMC) – CNR of Messina, Italy ² Dep. of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Italy ³ Institute of Applied Sciences & Intelligent Systems "Eduardo Caianiello" (ISASI)-CNR of Messina, Italy ⁴ Dep. of Electronic Engineering, University of Catania, Italy</p>
ID 299	<p>ANTIMICROBIAL AGENTS IN PERSONAL CARE PRODUCTS CAUSE ANTIESTROGENIC EFFECT <u>Linhartová Lucie</u>^{1,2}, <u>Ezechiáš Martin</u>¹, <u>Michalíková Klára</u>^{1,2} and <u>Cajthaml Tomáš</u>^{1,2} ¹ Institute of Microbiology, Academy of Sciences of the Czech Republic, v.v.i., Czech Republic ² Institute for Environmental Studies, Faculty of Science, Charles University, Czech Republic</p>
ID 394	<p>EMERGING CONTAMINANTS TRANSLOCATION IN VEGETABLES FROM CONTAMINATED SOIL <u>Gabriele Beretta</u>, <u>Andrea Mastorgio</u>, <u>Sabrina Saponaro</u> and <u>Elena Sezenna</u> Politecnico di Milano, DICA - Environmental section, Milano, Italy</p>
MONITORING STUDIES AND TOOLS	
ID 135	<p>SORPTION OF ORGANIC POLLUTANTS TO SOIL AND BIOFILM <u>Muhammad Raza</u>^{1,2}, <u>Tyne Brückner</u>², <u>Christine Kübeck</u>¹ and <u>Christoph Schüth</u>^{1,2} ¹ IWW Water Centre, Mülheim an der Ruhr, Germany ² Institute of Applied Geosciences, Technische Universität Darmstadt, Germany</p>
ID 136	<p>HISTORICAL ACCUMULATION OF PAHs IN SEDIMENTS OF THE HANABANILLA RESERVOIR, VILLA CLARA, CUBA <u>Orlando Manuel Viera Ribot</u>, <u>Misael Díaz Asencio</u> and <u>Yan Miguel Gallo</u> Centre of Environmental Studies of Cienfuegos, Cuba</p>
ID 208	<p>PAH BIOTRANSFORMATION IN SEDIMENT-CAPPING ENVIRONMENTS: RECOMMENDATIONS FOR DESIGNING BIOACTIVE SYSTEMS <u>Giovanna Pagnozzi</u>, <u>Kayleigh Millerick</u> and <u>Danny Reible</u> Dept. of Civil & Environmental Engineering, Texas Tech University, Lubbock, TX, USA</p>
ID 296	<p>COMET ASSAY – A SIMPLE METHOD FOR EVALUATION OF MUTAGENICITY OF NANOPARTICLES <u>Petra Lovecká</u>¹, <u>V. Pavelková</u>¹, <u>A. Macůrková</u>¹, <u>J. Siegel</u>², <u>O. Valentová</u>¹ and <u>K. Demnerová</u>¹ ¹Dept of Biochemistry and Microbiology, UCT Prague, Prague 6, Czech Republic. ²Dept of Solid State Engineering, UCR Prague, Prague 6, Czech Republic.</p>
BIOREACTORS TECHNOLOGIES FOR EX-SITU TREATMENT	
ID 273	<p>CARBON CAPTURE BY MACROPHYTES PLANTED IN FLOATING TREATMENT WETLANDS ESTABLISHED IN URBAN PONDS <u>Gloria Sánchez-Galván</u>, <u>Eugenia J. Olguín</u>, <u>David Jiménez-Moreno</u>, <u>Francisco J. Melo</u> and <u>Javier Hernández-Landa</u> Environmental Biotechnology Group, Institute of Ecology, Xalapa, Veracruz, México</p>
ID 274	<p>PHYCOCYANIN INDUCTION IN <i>Arthrospira maxima</i> WITH DIFFERENT LED LAMPS: A TWO-STAGE PROCESS <u>Daniel A. García-López</u>¹, <u>Eugenia J. Olguín</u>¹, <u>Ricardo E. González-Portela</u>¹, <u>Gloria Sánchez-Galván</u>¹ and <u>Robert Lovitt</u>² ¹Environmental Biotechnology Group, Institute of Ecology, Mexico ²Membranology Ltd, Swansea University, UK</p>
ID 329	<p>METHANE PRODUCTION FROM FOOD WASTE IN A PERIODIC ANAEROBIC BUFFLED REACTOR (PABR) <u>Dimitrios Mathioudakis</u>¹, <u>Ioannis Michalopoulos</u>¹, <u>Konstantinos Kalogeropoulos</u>¹, <u>Konstantina Papadopoulou</u>¹ and <u>Gerasimos Lyberatos</u>^{1,2} ¹School of Chemical Engineering, National Technical University of Athens, Athens, Greece ²Institute of Chemical Engineering Sciences (ICE-HT), Platani, 26504 Patras, Greece</p>
ID 341	<p>EVALUATION OF PHYCOERYTHRIN WET-EXTRACTION FROM <i>Porphyridium purpureum</i> BY THREE METHODS <u>Mavy F. Maldonado-Salazar</u>¹, <u>J. Saúl García-Pérez</u>¹, <u>Carmen Salinas-Salazar</u>¹, <u>Hafiz M.N. Iqbal</u>¹, <u>Robert W. Lovitt</u>², <u>Eugenia J. Olguín</u>³, <u>Roberto Parra-Saldívar</u>¹ ¹ Tecnológico de Monterrey, Escuela de Ingeniería y Ciencias, Monterrey, N.L., México ²Membranology Ltd c/o Broomfield & Alexander Li Charter Court Phoenix Way, Swansea, UK ³Environmental Biotechnology Group, Institute of Ecology (INECOL), El Haya, Xalapa, Mexico</p>
ID 360	<p>REMOVAL OF TOXIC METAL IONS FROM AQUEOUS EFFLUENTS BY BIOSORPTION AND BIOACCUMULATION IN AN AIRLIFT SYSTEM</p>

Mihaela Roşca¹, Teresa Tavares² and Maria Gavrilesu^{1,3}

¹*Gheorghe Asachi* TU-Iasi, Dept of Environmental Engineering and Management, Iasi, Romania

²University of Minho, CEB – Centre of Biological Engineering, Campus de Gualtar, Braga, Portugal

³Academy of Romanian Scientists, Bucharest, Romania

PHYTOREMEDIATION TECHNOLOGIES FOR REMOVAL OF HEAVY METALS

ID 110 PHYTOREMEDIATION MEASURES FOR RESTORING QUALITY STATE OF CHERNOZEM CAMBIC FROM MOLDOVA

Tamara Leah

Institute of Soil Science, Agrochemistry and Soil Protection “Nicolae Dimo”, Chisinau, Republic of Moldova

ID 111 SCREENING FOUR ATRIPLEX SPECIES FOR SALT TOLERANCES

Amer W. Abdul Kareem¹ and Khalid E.N. AL-Hadidi¹

¹ Soil Science Department, College of Agriculture and Forestry, University of Mosul, Iraq

ID 130 SYMBIOTIC ROLE OF LEAD RESISTANT STRAIN *Acinetobacter junii* Pb1 AND *Vetiveria zizanioides* cv. KS-1 IN ENHANCING PHYTOSTABILIZATION OF LEAD

Anamika Kushwaha and Radha Rani

Dept of Biotechnology, Motilal Nehru National Institute of Technology, Teliyarganj, Uttar Pradesh, India

ID 149 HIRING MICROBIAL CONSORTIA FOR BIOREMEDIATION OF HEXAVALENT CHROMIUM IN TANNERY EFFLUENT

Pradeep Varathan P., Neelakandan A. R. and Rajanikant G. K.

School of Biotechnology, National Institute of Technology Calicut, Calicut, India

ID 163 RESPONSE OF WILLOW PLANTS DURING AN INTENSIVE GROWTH PHASE TO THE SEWAGE SLUDGE APPLICATION

Anna Wyrwicka¹ and Magdalena Urbaniak²

¹Dept of Plant Physiology and Biochemistry, University of Lodz, Lodz, Poland

²European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Lodz, Poland

ID 192 PHYTOREMEDIATION USING WATER LETTUCE (*PISTIA STRATIOTES* L.) FOR HEXAVALENT CHROMIUM REMOVAL FROM NICKEL ORE MINES WASTEWATER

Erikha Maurizka Mayzarah¹, Setyo Sarwanto Moersidik¹ and Lana Saria²

¹ School of Environmental Science, Universitas Indonesia, Indonesia

²Ministry of Energi and Mineral Resources, Indonesia

ID 198 DIFFERENT ARSENIC SPECIES IN FERNS AND FUNGI

Marek Popov¹, Veronika Zemanová², Jan Sácký¹, Simone Braeuer³, Tomáš Matoušek⁴, Tereza Leonhardt¹, Milan Pavlík², Jan Borovička⁴, Walter Goessler³, Daniela Pavlíková⁵ and Pavel Kotrba¹

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³ Institute of Chemistry - Analytical Chemistry, University of Graz, Graz, Austria

⁴ Institute of Analytical Chemistry of the Czech Academy of Sciences, Czech Republic

⁵ Dept. of Agro-Environ. Chemistry and Plant Nutrition, Czech University of Life Sciences, Czech Republic

ID 225 PHYTOEXTRACTION TRIALS OF ARSENIC WITH CANNABIS SATIVA, ZEA MAYS AND SELECTED INDIGENOUS BACTERIA

Elisabetta Franchi¹, Francesca Pedron², Martina Grifoni², Irene Rosellini², Meri Barbafieri², Paola Cosmina¹ and Giannantonio Petruzzelli²

¹ Eni S.p.A., Renewable Energy & Environmental R&D, San Donato Milanese (MI), Italy

² Institute of Ecosystem Study, National Council of Research, Pisa, Italy

ID 235 GLUTATHIONE PRODUCTION IN *Lepidium sativum* L. DURING ASSISTED PHYTOEXTRACTION OF MERCURY CONTAMINATE SOILS

Beata Smolińska

Dept of Biotechnology and Food Sciences, Lodz University of Technology, Poland

ID 269 ISOLATION OF ALUMINUM (Al) TOLERANT PLANT GROWTH BACTERIA AND THEIR EFFECTS ON MAIZE GROWING IN SOIL WITH LOW PH

Tamoor Ul Hassan¹, Kalsoom Bibi¹, Aftab Afzal¹, Manzoor Hussain¹ and Ghayyour Ul Hassan²

¹Department of Botany, Garden Campus Hazara University, Mansehra, Pakistan

²Department of Mathematics, Riphah International University, Islamabad

ID 379 ISOLATION AND MORPHO-MOLECULAR IDENTIFICATION OF ROOT SYMBIONTS FOR THE ECOLOGICAL RESTORATION OF SCHEFFERVILLE IRON ORE MINING SITE IN NORTHERN QUEBEC, CANADA

L. Côté¹, S. Boudreau², M.-E. Beaulieu³, M. Beaudoin⁴, L. Didillon⁵, H. Robitaille⁶ and D.P.Khasa¹

¹ Centre d'études de la Forêt, Université Laval, Canada ²Département de Biologie, Université Laval, Canada

³ Institute for Integrative and Systems Biology (IBIS), Université Laval, Canada

⁴ Viridis Terra Innovations, Québec, Canada ⁵ Tata Steel Minerals Limited, Schefferville, Canada

⁶ T2 Environnement, McMasterville, Canada

ID 395 MORPHO-BIOCHEMICAL EVALUATION OF HEMP PLANTS (*Cannabis sativa* L.) GROWN ON METAL-CONTAMINATED SOILS

Fabrizio Pietrini, Laura Passatore, Valerio Patti, Fedra Francocci, Alessandro Giovannozzi, Angelo Massacci and Massimo Zacchini

CNR, Institute of Agro-environmental and Forest Biology, Italy

ID 405 EUROPE-INDIA COOPERATION ON BIO- AND PHYTO-REMEDIATION TECHNOLOGIES

Serena Carloni¹, Laura Passatore¹, Paras R. Pujari², Shalini Dyani², Parikshit Verma² and M. Zacchini¹

¹ CNR, Institute of Agro-environmental and Forest Biology, Italy

² National Environmental Engineering Research Institute, Council of Scientific and Industrial Research, India

ID 411 VERSATILE BEHAVIOUR OF BACTERIAL STRAIN *Microbacterium* sp. Be9 IN PRESENCE OF URANIUM AND ITS BIOREMEDIATION POTENTIAL

Iván Sánchez-Castro¹, Pablo Martínez-Rodríguez¹, María Pinel-Cabello¹, Germán Bosch-Estévez¹, Vannapha Phrommavanh², Michael Descostes² and Mohamed Larbi Merroun¹

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² LR&D Department, AREVA Mines, Paris, France

CONSTRUCTED WETLANDS / PHYTOREMEDIATION TECHNOLOGIES FOR ORGANIC CONTAMINANTS

ID 308 *TYPHA LATIFOLIA* AND *PHRAGMITES AUSTRALIS* AS PERSPECTIVE PHYTOSTABILIZERS OF MULTI-METAL CONTAMINATED SEDIMENT

Maria Maleva, Galina Borisova, Tripti, Adarsh Kumar, Grigoriy Shiryaev and Polina Lukina

Dept of Experimental Biology and Biotechnology, Institute of Natural Sciences and Mathematics, Ural Federal University, Ekaterinburg, Russia

ID 320 COMPOST AND BACTERIAL INOCULANTS SIGNIFICANTLY IMPROVE SPINACH-GROWTH ON HEAVY METAL CONTAMINATED SOIL

Ivelina Babrikova¹, Stefan Shiley¹ and Todor Babrikov²

¹ Dept. Microbiology & environmental biotechnologies, Agricultural university-Plovdiv, Bulgaria

² Dept. Horticulture, Agricultural university-Plovdiv, Bulgaria

ID 356 UPTAKE OF HEAVY METALS BY VETIVER GRASS (*CHRYSOPOGON ZIZANIOIDES* L.) GROWN IN INDUSTRIALLY POLLUTED SOILS IN BULGARIA

Violina Angelova and Huu Quang Le

Agricultural University-Plovdiv, Bulgaria

ID 357 POTENTIAL OF BASIL (*OCIMUM BASILICUM* L.) FOR PHYTOREMEDIATION OF SOILS CONTAMINATED WITH HEAVY METALS

Violina Angelova

Agricultural University-Plovdiv, Bulgaria

ID 359 HEAVY METALS TOXICITY ON MICROORGANISMS AND PLANTS AND OPPORTUNITIES FOR ENVIRONMENTAL BIOREMEDIATION

Mariana Diaconu¹, Lucian Vasile Pavel^{1,2}, Mihaela Roșca¹, Raluca Maria Hlihor^{1,3}, Markus Lenz^{4,5}, Philippe Xavier Corvini⁴ and Maria Gavrilescu^{1,6}

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⁴ Institute for Ecopreneurship, School of Life Science, FHNW, Muttenz, Switzerland

⁵ Sub-Department of Environmental Technology, Wageningen University, Wageningen, The Netherlands

⁶ Academy of Romanian Scientists, Bucharest, Romania

ID 388 MUNICIPAL WASTEWATER TERTIARY TREATMENT FOR Cd, Ni AND Zn REMOVAL BY A HALOPHYTE-BASED CONSTRUCTED WETLAND MESOCOSM

Rozalia Agioutanti, Eleni Manousaki, Stavros Christofilopoulos and Nicolas Kalogerakis

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

MATHEMATICAL MODELLING OF BIOREMEDIATION PROCESSES

ID 410 THEORETICAL AND EXPERIMENTAL INVESTIGATION OF THE BIODEGRADATION OF SOLITARY OIL MICRODROPLETS

George E. Kapellos^{1,2}, Nicolas Kalogerakis² and Patrick S. Doyle¹

¹ Dept of Chemical Engineering, Massachusetts Institute of Technology, Cambridge MA, USA

² School of Environmental Engineering, Technical University of Crete, Chania, Greece

OIL SPILLS & MARINE LITTER – MITIGATION MEASURES

ID 415 BIOFILM STRUCTURE OF MARINE HYDROCARBON DEGRADERS IN WEATHERED CRUDE OIL

Maria Nikolopoulou¹, Angela Pasparaki², N. Pasadakis³ and Nicolas Kalogerakis¹

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

² Institute of Molecular Biology and Biotechnology (IMBB), FORTH, Heraklion, Crete, Greece

³ School of Mineral Resources Engineering, Technical University of Crete, Chania, Greece

ID 416 THE EFFECT OF UV RADIATION AND BIOFOULING ON PLASTIC FILMS: PRELIMINARY RESULTS

Despoina Barouta, Katerina Savva, Katerina Karkanorachaki, Evdokia Syranidou and Nicolas Kalogerakis

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

ID 417 BIODEGRADATION OF MICROPLASTICS IN MICROCOSMS

Giorgos Dasenakis, Panagiota Tsiota, Maria Loli, Katerina Karkanorachaki, Evdokia Syranidou and Nicolas Kalogerakis

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

ID 418 HIGH PURITY BIOSURFACTANTS GENERATED VIA A NOVEL PRODUCTION SCHEME USING HEAVY OIL RESIDUES AND THEIR ROLE IN OIL REMEDIATION

Eleftheria Antoniou^{1,2}, Athina Mandalenaki¹ and Nicolas Kalogerakis¹

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

² Eastern Macedonia and Thrace Institute of Technology, Kavala, Greece

ID 419 IN SITU OIL BURNING IMPACT ON MARINE SHALLOW WATERS - A MESOCOSM EXPERIMENT

Eleftheria Antoniou¹, Stavros Chatzidakis¹, Iordanis Magiopoulos², Paraskevi Pitta², Giulio Zanaroli³ and Nicolas Kalogerakis¹

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

² Institute of Oceanography, Hellenic Centre for Marine Research, Heraklion, Greece

³ Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy

ID 420 OIL DISPERSANT EFFICIENCY IN SUBSEA APPLICATION

Marios Daskalakis, Maria Kechagia, Petros Kokolakis, Alexandra Tzamara, Eleftheria Antoniou and Nicolas Kalogerakis

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

POSTER PRESENTATIONS

POSTER SECTION B

(Presentation Period: Tuesday 17:00 to Thursday 13:45)

MOLECULAR BIOLOGY APPLICATIONS TO BIOREMEDIATION

- ID 143** **COMPARATIVE ANALYSIS OF BACTERIAL ENRICHMENT CULTURES DEGRADING AROMATIC HYDROCARBONS UNDER AEROBIC OR MICROAEROBIC CONDITIONS**
Fruzsina Révész¹, Milán Farkas¹, István Szabó², Balázs Kriszt², András Táncsics¹
¹Regional University Center of Excellence in Environmental Industry, Szent István University, Hungary
²Dept of Environmental Safety and Ecotoxicology, Szent István University, Hungary
- ID 144** **ENRICHMENT OF NITRATE REDUCER TOLUENE DEGRADING BACTERIA FROM A HYPOXIC BTEX CONTAMINATED SITE.**
Milán Farkas¹, Fruzsina Révész², Balázs Kriszt¹, Sándor Szoboszlay¹, András Táncsics²
¹ Dept of Environmental Protection and Environmental Safety; Szent István University, Gödöllő, Hunga
² Regional University Center of Excellence in Environmental Industry, Szent István University, Gödöllő, Hungary
- ID 209** **CHARACTERIZATION OF AIRBORNE MICROBES INSIDE THE HISTORICAL MUSEUM OF CRETE**
Eleftheria Katsivela¹, Louiza Raisi^{1,2}, Ilias Kopanakis¹, Nicolas Kalogerakis² and Mihalis Lazaridis²
¹ Technological Educational Institute of Crete, Dept of Environmental and Natural Resources Engineering, Greece
² School of Environmental Engineering, Technical University of Crete, Chania, Greece
- ID 217** **BIOSURFACTANT- AND SIDEROPHORE-PRODUCING COLD-ACTIVE BACTERIA FROM ANTARCTICA – A PERSPECTIVE FOR DEVELOPMENT OF NOVEL BIOREMEDIATION TECHNOLOGIES**
Michał Styczyński¹, Tomasz Krucon², Anna Ciok¹, Witold Uhrzynowski², Pablo de Miguel Herraiz¹, Katarzyna Grzelak¹, Lukasz Drewniak² and Lukasz Dziewit¹
¹ Dept of Bacterial Genetics, Institute of Microbiology, Faculty of Biology, University of Warsaw, Poland
² Lab of Environmental Contamination Analysis, Institute of Microbiology, University of Warsaw, Poland
- ID 335** **HOW DO METAL NANOPARTICLES ENTER INTO *Arabidopsis thaliana* AND DISTURBE ITS SUBCELLULAR PROCESSES?**
Jindřiška Angelini, Ruslan Klassen, Jakub Siegel and Olga Valentová
Dept of Biochemistry and Microbiology, Univ. of Chemistry and Technology, Prague, Czech Republic

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Blanka Vrchotová, Petra Oravcová, Anna Pershina, Petra Lovecká and Kateřina Demnerová
Dept of biochemistry and microbiology, University of Chemistry and Technology, Prague, Czech Republic
- ID 426** **IAM CHROMATOGRAPHY AS A TOOL FOR THE PREDICTION OF ECOTOXICITY OF PESTICIDES**
Chrysanthos Stergiopoulos¹, Anna Tsantili- Kakoulidou², Maria Ochsenkühn- Petropoulou¹ and Fotios Tsopelas¹
¹ School of Chemical Engineering, National Technical University of Athens, Greece.
² School of Pharmacy, National and Kapodistrian University of Athens, Greece.
- ID 300** **NOBLE METAL NANOPARTICLES AS NEW EMERGING POLLUTANTS: IMPACT ON “SOIL-PLANT SYSTEMS”**

	<p><u>Anna Macůrková</u>¹, <u>Tereza Drobníková</u>¹, <u>Blanka Vrchotová</u>¹, <u>Barbora Jindřichová</u>³, <u>Jakub Siegel</u>², <u>Lenka Burketová</u>³, <u>Olga Valentová</u>¹ and <u>Petra Lovecká</u>¹ ¹ Dept. of Biochemistry and Microbiology, University of Chemistry and Technology Prague, Czech Republic ² Dept. of Solid State Engineering, University of Chemistry and Technology, Prague, Czech Republic ³ Institute of Experimental Botany AS CR, Czech Republic</p>
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<p>ID 336</p>	<p>NOVEL APPROACH FOR <i>IN SITU</i> MONITORING OF NANOSCALE ZERO-VALENT IRON EFFECTS DURING NANOBIOREMEDIATION <u>Jaroslav Semerád</u>^{1,2}, <u>Monika Moeder</u>³ and <u>Tomáš Cajthaml</u>^{1,2} ¹ Institute of Microbiology of the Academy of Sciences of the Czech Republic, Prague 4, Czech Republic ² Institute for Environmental Studies, Faculty of Science, Charles University, Prague 2, Czech Republic ³ Helmholtz-Center for Environmental Research – UFZ, Dept of Analytical Chemistry, Leipzig, Germany</p>
<p>ID 344</p>	<p>ROLE OF INORGANIC SOURCES ON THE RHAMNOLIPID PRODUCTION OF THE NATIVE <i>Pseudomonas aeruginosa</i> 6K-11 <u>Miguel Alcalde</u>, <u>Fernando Merino</u> and <u>Susana Gutiérrez</u> Biological Sciences Faculty - Universidad Nacional Mayor de San Marcos, Lima, Perú</p>
<p>ID 349</p>	<p>MONITORED NATURAL ATTENUATION OF A COMPLEX MIXTURE OF ORGANOCHLORINES USING COMPOUND-SPECIFIC ISOTOPE ANALYSIS <u>Michaela Blessing</u>, <u>Alain Saada</u>, <u>Stéfan Colombano</u>, <u>Jennifer Hellal</u> and <u>Marc Crampon</u> BRGM, 3 avenue Claude Guillemin, Orléans, France</p>
<p>ID 355</p>	<p>EFFECT OF ORGANIC CARBON ON EMERGING COMPOUNDS CONTENT IN THE BOTTOM SEDIMENTS ¹<u>Agnieszka Baran</u>, ²<u>Magdalena Urbaniak</u>, ¹<u>Monika Mierza-Hersztek</u>, ¹<u>Krzysztof Gondek</u>, ³<u>Marek Tarnawski</u>, and ¹<u>Magdalena Szara</u> ¹Dept of Agricultural and Environmental Chemistry, University of Agriculture in Krakow, Poland ²European Regional Centre for Ecohydrology of the Polish Academy of Sciences, Lodz, Poland, ³Dept of Hydraulic Engineering and Geotechnics, University of Agriculture in Krakow, Poland</p>
<p>ID 363</p>	<p>PHENOL DETECTION BASED ON ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY AND A NEW STRAIN BACTERIUM <u>Narjes Kolahchi</u>¹, <u>Gholamhossein Ebrahimipour</u>¹ and <u>Seyed Omid Ranaei-Siadat</u>² ¹Dept of Microbiology, Faculty of Life Science and Biotechnology, Shahid Beheshti Univ, Tehran, Iran ²Dept of Biotechnology, Faculty of Energy Engineering and New Technologies, Shahid Beheshti University, Tehran, Iran</p>
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<p>ID 401</p>	<p>LACCASE ENZYME PURIFICATION BASED ON THE INNOVATIVE METHOD OF THREE-PHASE PARTITIONING (TPP) <u>Georgia Charalampous</u>, <u>Petroula Seridou</u> and <u>Nicolas Kalogerakis</u></p>

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¹Dept of Biotechnology, School of Bioengineering, SRM Institute of Science and Techn., Kattankulathur, India

²Center for Environmental Nuclear Research, Directorate of Research, SRM Institute of Science and Technology, Kattankulathur, India

ID 157 WASTEWATER TREATMENT BY ENDOPHYTES: INVESTIGATING A NEW SUSTAINABLE METHOD AT GIDA S.p.A. PURIFIER

Elisangela Miceli¹, Camilla Fagorzi¹, Carolina Chiellini¹, Giovanni Bacci¹, Renato Fani¹, Ester Coppini² and Donatella Fibbi²

¹ Dep. Biology, University of Florence, Italy ² G.I.D.A. S.p.A., Prato, Italy

ID 254 WATER DISINFECTION METHODS FOR BACTERIAL INACTIVATION & STUDY OF DAMAGES IN SUBCELLULAR LEVEL

Maria – Aikaterini Lironi, Iosifina Gounaki and Danae Venieri

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

ID 255 INACTIVATION OF ANTIBIOTIC RESISTANT BACTERIA ISOLATED FROM SURFACE WATER & STUDY OF CHANGES IN RESISTANCE PROFILE

Konstantina Gavala, Iosifina Gounaki and Danae Venieri

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

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Georgios Koutrotsios¹, Sotiria Rondo^{1,2}, Constantinos Ehaliotis², Georgios I. Zervakis¹

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ID 365 INNOVATIVE SYSTEM FOR CWS IMPLEMENTATION, ROOT AND AERIAL BIOMASS MANAGEMENT ON ESTUARINE AQUACULTURE EFFLUENT TREATMENT

Diego Cicero-Fernández¹, Jose A. Expósito-Camargo¹, Manuel Peña-Fernández¹ and Blanca Antizar-Ladislao^{1, 2, 3}

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ID 398 ENZYMATIC QUORUM QUENCHING FOR ANTIFOULING IN WASTEWATER TREATMENT

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¹ Dept of Chemical and Biological Engineering, Korea University, Republic of Korea

² Construction Technology Team, Samsung C&T Corporation, Republic of Korea

ID 402 TREATMENT OF SIMULATED TEXTILE WASTEWATER BY CHEMICAL AND BIOLOGICAL DEGRADATION IN A BATCH MOVING BED BIOFILM REACTOR (MBBR)

Argyri Lakiotaki, Evdokia Syranidou and Nicolas Kalogerakis

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ID 408 OLIVE MILL WASTEWATER PHYTODEPURATION WITH THE USE OF *Myrtus communis* L. AND *Punica granatum* L. PLANTS: EXPERIMENTAL AND MODELING STUDY

Margarita Petoussi^{1,2}, Christos Papadimitropoulos¹ and Nicolas Kalogerakis^{1,2}

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ID 427 CLEANING WATER FROM ERYTHROMYCIN BY MEANS OF WASTE BIOMASS Stavros Georgopoulos¹, Dionissios Mantzavinos² and Maria Papadaki^{1,3}

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 Hassan II Institute of Agronomy and Veterinary Medicine, Agadir, Morocco
- ID 246** **ANALYSIS OF RECENT UNUSUAL HEAT SPELLS IN THE SOUSS VALLEY OF SOUTHWEST MOROCCO AND THEIR RELATIONSHIPS WITH CITRUS WATER NEEDS AND TREE FRUITING**
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 Dept of Horticulture, Institut Agronomique et Vétérinaire Hassan II, Agadir, Morocco
- ID 354** **DEVELOPMENT OF A COMPARTMENT MODEL TO ESTIMATE THE EFFECT OF TREATED WATER REUSE ON THE SOIL AND CROP**
 Roula Khadra¹, Giovanna Dragonetti¹, Abdellah Oubelkacem¹, Nicola Lamaddalena¹ and André Daccache²
¹ CIHEAM—Mediterranean Agronomic Institute of Bari (MAIB), Bari, Italy
² University of California, Davis - UCD Department of Biological and Agricultural Engineering Davis, CA, USA
- ID 412** **FACULTATIVE CANALIZED LAGOONS: A PRELIMINARY STUDY IN LABORATORY BIOREACTORS**
Dario Vettore, Azam Nazari, Davide Pinelli, Maurizio Mancini, Fabio Fava, Dario Frascari and Giulio Zanaroli
 Dept. of Civil, Chemical, Environmental and Materials Engineering – DICAM, University of Bologna, Italy