

# Poster Programme

## Poster Session 1

Sunday 16<sup>th</sup> September 2018, 18:00-19:30

Monday 17<sup>th</sup> September 2018, 10:00-10:30

Room: Tramuntana 1

[P1.01]	<b>Economical, mass and energy balance impact in a municipal solid waste anaerobic digestion plant using co-digestion</b> V. Abad* <sup>1</sup> , T. Vicent <sup>2</sup> , X. Font <sup>2</sup> , <sup>1</sup> <i>Consorci per a la Gestió dels Residus del Vallès Oriental, Spain</i> , <sup>2</sup> <i>Universitat Autònoma de Barcelona, Spain</i>
[P1.03]	<b>The hydrodynamics of an aqueous-hydrocarbon-yeast bioprocess in a bubble column reactor</b> A. Abufalgha*, R. Pott, K. Clarke, <i>University of Stellenbosch, South Africa</i>
[P1.04]	<b>An empirical model for the anaerobic co-digestion process of pig manure, sewage sludge, municipal solid waste, residues from bottled fruit drinks industry and cocoa industry residue</b> J. Mosquera <sup>1</sup> , L. Valera <sup>1</sup> , A. Rodríguez <sup>2</sup> , I. Cabeza <sup>1</sup> , M. Hernández <sup>3</sup> , A. Santis <sup>2</sup> , P. Acevedo* <sup>1,2</sup> , <sup>1</sup> <i>Universidad Santo Tomás, Colombia</i> , <sup>2</sup> <i>Universidad Cooperativa de Colombia, Colombia</i> , <sup>3</sup> <i>Universidad EAN, Colombia</i>
[P1.05]	<b>Economic feasibility and environmental impact assessment of anaerobic co-digestion processes in Colombia</b> V. Piñeros <sup>2</sup> , K. Melo <sup>2</sup> , J. Mosquera <sup>2</sup> , A. Santis <sup>1</sup> , M. Hernández <sup>3</sup> , I. Cabeza <sup>2</sup> , P. Acevedo* <sup>1,2</sup> , <sup>1</sup> <i>Universidad Cooperativa de Colombia, Colombia</i> , <sup>2</sup> <i>Universidad Santo Tomás, Colombia</i> , <sup>3</sup> <i>Universidad EAN, Colombia</i>
[P1.06]	<b>Nutrient fractionation and recovery from anaerobic digestates by membrane filtration: a pilot-scale study</b> G. Adam* <sup>1</sup> , A. Mottet <sup>2</sup> , B. De Vos <sup>1</sup> , E. Trouvé <sup>2</sup> , P. Delfosse <sup>1</sup> , <sup>1</sup> <i>Luxembourg Institute of Science and Technology, Luxembourg</i> , <sup>2</sup> <i>Ama Mundu Technologies SA, Luxembourg</i>
[P1.07]	<b>Genome sequence of <i>Herbivorax saccincola</i> A7, and comparative analysis with cellulose producing thermophilic anaerobe</b> S. Aikawa* <sup>1</sup> , S. Baramée <sup>2</sup> , J. Sermsathanaswadi <sup>2</sup> , P. Thianheng <sup>2</sup> , C. Tachaapaikoon <sup>2</sup> , A. Shikata <sup>3</sup> , R. Waeonukul <sup>2</sup> , P. Pason <sup>1</sup> , K. Ratanakhanokchai <sup>1</sup> , A. Kosugi <sup>1,3</sup> , <sup>1</sup> <i>JIRCAS, Japan</i> , <sup>2</sup> <i>KMUTT, Thailand</i> , <sup>3</sup> <i>Univ. Tsukuba, Japan</i>
[P1.08]	<b>The effect of different light intensities on nitrification process: Comparison of dispersed and granulated sludges</b> S. Akizuki*, N. Natori, T. Toda, <i>Soka University, Japan</i>
[P1.09]	<b>Thermophilic anaerobic co-digestion of exhausted sugar beet pulp with pig manure: Determination of the optimum mixture ratio</b> X. Gómez-Quiroga, K. Aboudi, C.J. Álvarez-Gallego*, L.I. Romero-García, <i>University of Cádiz, Spain</i>
[P1.11]	<b>Bioenergy and metabolites from residual biomass through anaerobic digestion and dark fermentation processes in biorefinery schemes.</b> M. Amado* <sup>1</sup> , I. Santiago <sup>1</sup> , I. Cabeza <sup>2</sup> , M.A. Hernández <sup>1</sup> , <sup>1</sup> <i>Universidad EAN, Colombia</i> , <sup>2</sup> <i>Universidad Santo Tomás, Colombia</i>
[P1.12]	<b>Utilization of deacetylated <i>Aloe vera</i> for probiotics and biomass maximization</b> A. Anand*, H. Aoyagi, <i>University of Tsukuba, Japan</i>
[P1.13]	<b>Fatty acids and derivatives as inhibitors of multi-drug resistant staphylococci</b> R.C. Anderson* <sup>1</sup> , A. Božić <sup>2</sup> , R.C. Beier <sup>1</sup> , R.B. Harvey <sup>1</sup> , M.E. Hume <sup>1</sup> , D.J. Nisbet <sup>1</sup> , <sup>1</sup> <i>United States Department of Agriculture/Agricultural Research Service, College Station, USA</i> , <sup>2</sup> <i>University of Novi Sad, Serbia</i>
[P1.14]	<b>Ethanol steam reforming for selective hydrogen and methane production</b> Y. Ando, <i>National Institute of Advanced Industrial Science and Technology, Japan</i>
[P1.15]	<b>Conversion of food processing by-products into energy sources for a large-scale food processing factory by anaerobically co-digesting with dairy manure from tie-stall barn</b> F.J. Andriamanohiarisoamanana* <sup>1</sup> , T. Yamashiro <sup>1</sup> , G. Qi <sup>1</sup> , Z. Pan <sup>1</sup> , S. Yasui <sup>2</sup> , M. Iwasaki <sup>1</sup> , K. Umetsu <sup>1</sup> , <sup>1</sup> <i>Obihiro University of Agriculture and Veterinary Medicine, Japan</i> , <sup>2</sup> <i>Dr., Japan</i>
[P1.16]	<b>Backpropagation neural network modelling pollutant removal efficiency and bioenergy yield during industrial wastewater treatment within a mesophilic anaerobic bioreactor</b> P. Antwi* <sup>1</sup> , J. Li <sup>2</sup> , J. Meng <sup>2</sup> , K. Deng <sup>2</sup> , F.K. Quashie <sup>2</sup> , J. Li <sup>2</sup> , P. Opoku Boadi <sup>1</sup> , <sup>1</sup> <i>Jiangxi University of Science and Technology, China</i> , <sup>2</sup> <i>Harbin Institute of Technology, China</i> , <sup>3</sup> <i>The University of Queensland, Australia</i>
[P1.17]	<b>Butanol production by <i>Clostridium acetobutylicum</i> ATCC 824 through electrofermentation in defined culture medium supplemented with butyrate</b> R. Gallardo, F. Vera, J. Quintero, I. Paredes, K. Guerrero, E. Gonzalez, E. Conejeros, J.C. Gentina, G. Aroca*, <i>Pontificia Universidad Católica de Valparaíso, Chile</i>
[P1.18]	<b>Ammonium sorption capacity of biochar from manure</b> A.M. Vargas <sup>1</sup> , L. Lázaro <sup>2</sup> , J.F. Mastral <sup>2</sup> , M. Atienza-Martínez* <sup>2</sup> , J. Ceamanos <sup>2</sup> , G. Gea <sup>2</sup> , <sup>1</sup> <i>Universidad de Zaragoza, Spain</i> , <sup>2</sup> <i>Aragón Institute for Engineering Research (I3A) - Universidad de Zaragoza, Spain</i>
[P1.19]	<b>Sewage sludge char activation by oxidation</b> A. Vega <sup>1</sup> , M. Atienza-Martínez* <sup>1</sup> , I. Fonts <sup>1,2</sup> , J. Ábrego <sup>1</sup> , G. Gea <sup>1</sup> , <sup>1</sup> <i>Universidad de Zaragoza, Spain</i> , <sup>2</sup> <i>Centro Universitario de la Defensa - Academia General Militar, Spain</i>
[P1.20]	<b>Sorption and desorption studies of Pb(II) and Ni(II) from aqueous solutions by a new composite based on alginate and magadiite materials</b> K. Attar* <sup>1,2</sup> , D. Bouazza <sup>1</sup> , A. Fortuny <sup>2</sup> , H. Demey <sup>2</sup> , A. Sastre <sup>2</sup> , <sup>1</sup> <i>University of Oran1 Ahmed Ben Bella, Algeria</i> , <sup>2</sup> <i>Universitat Politècnica de Catalunya, Spain</i>
[P1.21]	<b>Influence of biochar amendment on antibiotic resistance gene abundance and the bacterial community during aerobic composting of pig manure</b> M.K. Awasthi*, Z.Q. Zhang, <i>Northwest A&amp;F University, China</i>
[P1.22]	<b>Biochar as smart candidature to improve the microbial communities and mitigate the greenhouse gases emission during poultry manure composting</b> M.K. Awasthi*, Z.Q. Zhang, <i>Northwest A&amp;F University, China</i>

[P1.23]	<b>Oxidative stress induces carotenogenesis and lipid content in <i>Chlorella</i> sp.</b> A.A. Zainal Abidin <sup>1,2</sup> , H.T. Tan <sup>1</sup> , A.A. Mohd Zaki <sup>1</sup> , N.F. Mokhtar <sup>1</sup> , Z.N. Balia Yusuf <sup>*1,2</sup> , <sup>1</sup> Universiti Putra Malaysia, Malaysia, <sup>2</sup> Institute of Bioscience UPM, Malaysia
[P1.24]	<b>The process of obtaining bioethanol from sorghum biomass.</b> J. Batog*, A. Wawro, <i>Institute of Natural Fibres &amp; Medicinal Plants, Poland</i>
[P1.25]	<b>Nutrient alteration in sewage sludge by hydrothermal carbonisation - Compositional and process related contribution to the possibility of nutrient reclamation</b> G.C. Becker <sup>*1</sup> , E. Ovsyannikova <sup>1</sup> , Y. Fan <sup>2</sup> , J. Keller <sup>3</sup> , A. Kruse <sup>1</sup> , <sup>1</sup> University of Hohenheim, Germany, <sup>2</sup> Karlsruhe Institute of Technology, Germany, <sup>3</sup> Esslingen University of applied science, Germany
[P1.26]	<b>Food, fuel and fertilizer – Hydrothermal carbonization of microalgae and cyanobacteria for protein, hydrochar and struvite production</b> X. Zhao, A. Kruse, G. Becker*, K. Stoekle, <i>University of Hohenheim, Germany</i>
[P1.27]	<b>Strategies to increase biogas production by chicken litter in Ireland</b> N. Bhatnagar <sup>*1</sup> , D. Ryan <sup>1</sup> , R. Murphy <sup>2</sup> , A.M. Enright <sup>1</sup> , <sup>1</sup> Institute of technology, Ireland, <sup>2</sup> Alltech, Ireland
[P1.28]	<b>Isolation of bacterial species with potential capacity for siloxane removal in biogas upgrading</b> E. Boada*, E. Santos, A. Cabrera-Codony, M. Martín, L. Bañeras, F. Gich, <i>University of Girona, Spain</i>
[P1.30]	<b>Comparative evaluation of biodiesel and essential oil as diesel fuel alternative</b> S.M.A. Rahman <sup>1</sup> , T.J. Rainey <sup>1</sup> , M.N. Nabi <sup>2</sup> , M. Babaie <sup>3</sup> , Z.D. Ristovski <sup>1</sup> , R.J. Brown <sup>*1</sup> , <sup>1</sup> Queensland University of Technology, Australia, <sup>2</sup> Central Queensland University, Australia, <sup>3</sup> University of Salford, UK
[P1.31]	<b>testing the biomethane potential (bmp) of process waters from hydrothermal carbonisation (htc) of seaweed</b> A. Brown <sup>*1</sup> , A.M. Smith <sup>2</sup> , I. Razaq <sup>1</sup> , A.B. Ross <sup>1</sup> , <sup>1</sup> University of Leeds, UK, <sup>2</sup> Aarhus university, Denmark
[P1.32]	<b>Effects of CO on hydrogenotrophic methanogenesis under thermophilic condition: microbial community and biomethanation pathways</b> F. Bu*, N.S. Dong, L. Xie, Q. Zhou, <i>Tongji University, China</i>
[P1.33]	<b>Impact of carbon source and light intensity on the PHA synthesis in <i>Rhodospirillum rubrum</i></b> P. Cabecas Segura*, C. Magnani, J-M. Raquez, R. Wattiez, B. Leroy, <i>University of Mons, Belgium</i>
[P1.34]	<b>Increase of the productivity of R-3-phenylglutaric acid by engineering of the reaction medium</b> Z. Cabrera*, Y. Fredes, L. Chamorro, <i>Pontificia Universidad Catolica De Valparaiso, Chile</i>
[P1.35]	<b>Prospective life cycle assessment of emerging technologies for bio-based materials</b> C. Caldeira <sup>*1</sup> , S. Cucurachi <sup>2</sup> , S. Corrado <sup>1</sup> , S. Sala <sup>1</sup> , <sup>1</sup> Joint Research Center, European Commission, Italy, <sup>2</sup> University of Leiden, The Netherlands
[P1.36]	<b>Environmental Assessment of electricity produced in biogas plants using alternative feedstocks</b> C. Caldeira <sup>*1</sup> , J. Bacenetti <sup>2</sup> , S. Corrado <sup>1</sup> , S. Sala <sup>1</sup> , <sup>1</sup> Joint Research Center, European Commission, Italy, <sup>2</sup> Università degli Studi di Milano, Italy
[P1.37]	<b>Characterization of hydrochars and resulting ashes derived from different biogas digestates</b> Z. Cao*, G. Ravikumar, D. Jung, A. Kruse, <i>University of Hohenheim, Germany</i>
[P1.38]	<b>Sorption performance of chitosan-iron(III) composite for antimony(III) removal from waters</b> B. Lapo <sup>1,2</sup> , H. Demey <sup>3</sup> , T. Carchi <sup>*2</sup> , C. Pardo <sup>2</sup> , A.M. Sastre <sup>1</sup> , <sup>1</sup> Technical University of Catalonia, Spain, <sup>2</sup> Technical University of Machala, Ecuador, <sup>3</sup> Commissariat à l'Energie Atomique et aux Energies Alternatives, France
[P1.39]	<b>Rice powder waste enzymatic hydrolysis for production of second generation ethanol</b> J. Ayala <sup>1,2</sup> , B. Lapo <sup>2,3</sup> , T. Carchi <sup>*2</sup> , G. Machuca <sup>2</sup> , M. Veiga <sup>1</sup> , <sup>1</sup> University of A Coruña, Spain, <sup>2</sup> Technical University of Machala, Ecuador, <sup>3</sup> Technical University of Catalonia, Spain
[P1.42]	<b>Comparative analysis of the lignin degrading activity of three recombinant laccases obtained from a mexican strain of <i>Pycnoporus sanguineus</i> overexpressed in yeast</b> A. Cerdan-Cabrera <sup>*1</sup> , E. Alarcon <sup>1</sup> , A. Camas <sup>2</sup> , F. Ziarelli <sup>3</sup> , L. Sanchez-Velasquez <sup>1</sup> , <sup>1</sup> Universidad Veracruzana, Mexico, <sup>2</sup> Instituto Politecnico Nacional, Mexico, <sup>3</sup> Aix Marseille Université, France
[P1.43]	<b>Effect of ultraviolet radiation on the production of mycosporine-like amino acids and saturated lipids by <i>Lyngbya</i></b> R. Chandra <sup>*1,2</sup> , J.A.G. Uribe <sup>1</sup> , B.E. Rittmann <sup>1,2</sup> , <sup>1</sup> Tecnologico de Monterrey, School of Engineering and Science, Mexico, <sup>2</sup> Arizona State University, USA
[P1.44]	<b>Sustainable biomass utilization and multiple product recoveries in form of lipid, pigment, and frustules from <i>Cyclotella</i></b> R. Chandra <sup>*1,2</sup> , J.A.G. Uribe <sup>1</sup> , B.E. Rittmann <sup>1,2</sup> , <sup>1</sup> Tecnologico de Monterrey, School of Engineering and Science, Mexico, <sup>2</sup> Arizona State University, USA
[P1.45]	<b>Application of a multi-injection HPCCC method for obtaining lutein from yellow <i>Chlorella</i> sp. biomass</b> J. Cheel <sup>*1</sup> , T. Fábryová <sup>1,2</sup> , D. Kubác <sup>1</sup> , P. Hrouzek <sup>1</sup> , L. Tumová <sup>2</sup> , J. Kopecký <sup>1</sup> , <sup>1</sup> Czech Academy of Sciences, Czech Republic, <sup>2</sup> Charles University, Czech Republic
[P1.46]	<b>Improving mechanical properties of carbon nanotube reinforced bio-based epoxy composites</b> Y.H. CHEN*, Z.H. XI, L. ZHAO, <i>East China University of Science and Technology, China</i>
[P1.47]	<b>Synthesis and characterization of polyols derived from ozonated cottonseed oil under UV treatment</b> F. chen <sup>*1</sup> , J. li <sup>1</sup> , Z.H. xi <sup>1</sup> , L. zhao <sup>1</sup> , L.P. li <sup>2</sup> , <sup>1</sup> East China University and Technology, China, <sup>2</sup> Dalian Research Institute of Petroleum and Petrochemicals, China
[P1.48]	<b>A simple process for the bio-ethanol production by using rice bran as feedstock</b> C.C. Chen*, G.J. Gao, A.L. Kao, C.T. Tsai, H.Y. Cheng, J.H. Chen, Z.C. Tsai, <i>Green Technology Research Institute, CPC Corporation, Taiwan</i>
[P1.49]	<b>Analysis and purification of <math>\gamma</math>-oryzanol from the supercritical CO<sub>2</sub>-extracted brown rice crude oil.</b> J.H. Chen*, A.L. Kao, C.T. Tsai, H.Y. Cheng, C.C. Chen, Z.C. Tsai, T.L. Huang, <i>Green Technology Research Institute, CPC Corporation, Taiwan</i>
[P1.50]	<b>Biodegradation of strobilurin fungicides by <i>Burkholderia anthina</i> BA01</b> S.H. Chen*, H. Zhan, Y.M. Feng, F. Yang, <i>South China Agricultural University, China</i>
[P1.51]	<b>Biosynthesis of 2,3-bitanediol through microbial fermentation – comparison of different carbon sources</b>

	H.Y. Cheng*, C.C. Chen, C.T. Tsai, A.L. Kao, J.H. Chen, Z.C. Tsai, <i>Green Technology Research Institute, CPC Corporation, Taiwan</i>
[P1.52]	<b>The evaluation of greenhouse gases global warming potential emitted from the liming upland soil.</b> S.R. Cho*, J.G. Lee, P.J. Kim, <i>gyeongsang national University, Republic of Korea</i>
[P1.53]	<b>Biodiesel potential laden in sewage sludge</b> O.K. Choi*, J.W. Lee, <i>Korea University, Republic of Korea</i>
[P1.54]	<b>Changing co-factor specificity of an alcohol dehydrogenase increases ethanol production of cyanobacteria</b> Y.N. Choi*, H.J. Shin, J.W. Kim, J.M. Park, <i>POSTECH, Republic of Korea</i>
[P1.55]	<b>Utilization of NaOH-active SiO<sub>2</sub> activator system from rice ash base a natural waste for metakaolin-based geopolymer synthesis</b> S. Chokkha*, A. Poowancum, <i>Suranaree University of technology, Thailand</i>
[P1.56]	<b>Nanoferrosonication: A novel strategy for intensification the methanogenic process of sewage sludge</b> A.J. Córdova-Lizama*, C. Carrera-Figueiras, A. Zepeda-Pedreguera, J.E. Ruiz-Espinoza, <i>Universidad Autónoma de Yucatán, Mexico</i>
[P1.57]	<b>Effects of cobalt nanoparticles dosage on the anaerobic biodegradability of waste activated sludge</b> A.J. Córdova-Lizama*, C. Carrera-Figueiras, A. Zepeda-Pedreguera, J.E. Ruiz-Espinoza, <i>Facultad de Ingeniería Química, Universidad Autónoma de Yucatán, Mexico</i>
[P1.58]	<b>Enhancing performance and stability of anaerobic digestion of sewage sludge by zero valent iron nanoparticles dosage</b> A.J. Córdova-Lizama*, C. Carrera-Figueiras, A. Zepeda-Pedreguera, J.E. Ruiz-Espinoza, <i>Universidad Autónoma de Yucatán, Mexico</i>
[P1.59]	<b>Tartaric acid valorisation from wine lees by means of electro dialysis</b> X. Vecino <sup>1</sup> , M. Reig <sup>1</sup> , C. Valderrama <sup>1</sup> , O. Gibert <sup>1,2</sup> , J.L. Cortina <sup>*1,2</sup> , <sup>1</sup> UPC-Barcelona TECH, Spain, <sup>2</sup> CETAQUA, Spain
[P1.60]	<b>Potential of membrane technology in purification of furfural: A preliminary study by nanofiltration membranes</b> N. Mohamad <sup>1</sup> , M. Reig <sup>2</sup> , X. Vecino <sup>2</sup> , K. Yong <sup>1</sup> , J.L. Cortina <sup>*2,3</sup> , <sup>1</sup> Universiti Kuala Lumpur, Malaysia, <sup>2</sup> UPC-Barcelona TECH, Spain, <sup>3</sup> CETAQUA, Spain
[P1.61]	<b>Novel hydrolysis methods for algae and water hyacinth</b> S. Dahiya*, R. Chowdhury, P. Kumar, <i>Indian Institute of Technology, Roorkee, India</i>
[P1.62]	<b>Purification, characterization and application of a detergent-stable alkaline <math>\alpha</math>-amylase and pullulanase from <i>Clavispora lusitanae</i> ABS7</b> S. dakhmouche <sup>*1,2</sup> , L. bennamoun <sup>2</sup> , K.F.Z. labbani <sup>1,2</sup> , A. aitkaki el hadef el okki <sup>2</sup> , T. nouadri <sup>2</sup> , Z. meraihi <sup>2</sup> , L. gillmann <sup>3</sup> , <sup>1</sup> Ecole Normale Supérieure Assia DJEBAR, Algeria, <sup>2</sup> Université des frères Mentouri, Algeria, <sup>3</sup> université d'Angers, France
[P1.63]	<b>Removal of fluoride from aqueous environment using montmorillonite and chitosan: Comparative studies using composite and alum-assisted coagulation</b> D. Das*, S. Ramesh, <i>PSG College of Technology, India</i>
[P1.64]	<b>torrefaction of poplar biomass: manufacturing of an efficient biofuel and low-cost sorbent for metal removal from effluents</b> H. Demey <sup>*1,2</sup> , T. Melkior <sup>1</sup> , M. Perez <sup>1</sup> , A. Chatroux <sup>1</sup> , P. Pons de Vincent <sup>1</sup> , K. Attar <sup>2</sup> , S. Thiery <sup>1</sup> , M. Grateau <sup>1</sup> , M. Marchand <sup>1</sup> , <sup>1</sup> Commissariat à l'Energie Atomique et aux Energies Alternatives, France, <sup>2</sup> Universitat Politècnica de Catalunya, Spain
[P1.65]	<b>Manufacturing of a low-cost biofuel material by thermal conversion of wheat straw biomass in a continuous multiple-hearth torrefaction furnace</b> A. Chatroux, H. Demey*, M. Gonzalez-Martinez, M. Grateau, M. Marchand, T. Melkior, M. Perez, P. Pons de Vincent, S. Thiery, <i>Commissariat à l'Energie Atomique et aux Energies Alternatives, France</i>
[P1.66]	<b>The characteristics of NO emission during the combustion of large particles</b> R. Deng*, H. Du, M. Zhang, Y. Luo, <i>Shanghai Jiao Tong University, China</i>
[P1.67]	<b>Effective deconstruction of indian agro residues using imidazole-PEG-based solvents – A comprehensive characterization study</b> P. Dhar <sup>*1</sup> , R. Vinu <sup>1,2</sup> , <sup>1</sup> Indian Institute of Technology Madras, India, <sup>2</sup> National Centre for Combustion Research and Development, India
[P1.68]	<b>Enhanced anaerobic digestion by semi-continuous micro-dosage of Ca(NO<sub>3</sub>)<sub>2</sub></b> C. Dinamarca <sup>*1</sup> , D. Carvajal <sup>1</sup> , K. Borges <sup>1</sup> , W. Franke <sup>2</sup> , M. Torabzadegan <sup>2</sup> , R. Bakke <sup>1</sup> , <sup>1</sup> University of South-Eastern Norway, Norway, <sup>2</sup> YARA International ASA, Norway
[P1.69]	<b>Bioelectrochemical methane production in reject water from anaerobic digesters</b> A.B.T. Nelabhotla, C. Dinamarca*, <i>University of South Eastern Norway, Norway</i>
[P1.71]	<b>Fungal remediation of vinasse from distillation of winemaking by-products</b> J.M.C. Fernandes*, R.M.O.F. Sousa, A. Sampaio, C. Amaral, S. Semitela, F. Braga, I. Fraga, R.M. Bezerra, A.A. Dias, <i>UTAD – Universidade de Trás-os-Montes e Alto Douro, Portugal</i>
[P1.72]	<b>Selection of the solvent and extraction conditions for maximum recovery of phenolic compounds from <i>Pinus pinaster</i> bark</b> P. Ferreira-Santos*, J.A. Teixeira, C.M.R. Rocha, <i>University of Minho, Portugal</i>
[P1.73]	<b>Rice bran as a source of high value protein-based products</b> Y.A. Rodríguez-Restrepo <sup>1,2</sup> , P. Ferreira-Santos <sup>*1</sup> , C.E. Orrego <sup>2</sup> , J.A. Teixeira <sup>1</sup> , C.M.R. Rocha <sup>1</sup> , <sup>1</sup> University of Minho, Portugal, <sup>2</sup> Universidad Nacional de Colombia, Colombia
[P1.74]	<b>Grease trap waste codigestion with microalgal biomass and sludge: Towards zero waste facilities for resource recovery from wastewater</b> I. Ferrer*, M. Solé-Bundó, M. Garfí, <i>Universitat Politècnica de Catalunya, Spain</i>
[P1.75]	<b>Mixture Design of Panicum Maximum Produced in Simulated Future Climate Conditions Hydrolyses by Laccases, Xylanase and Cellulase Rich Extracts</b> E.N. Freitas <sup>*1</sup> , J.M. Messias <sup>1</sup> , A.S.A. Scarcella <sup>1</sup> , V.E. Pinheiro <sup>1</sup> , A.G. Contato <sup>1</sup> , A.C. Vici <sup>1</sup> , W.D. Santos <sup>2</sup> , R.M. Peralta <sup>2</sup> , C.A.M. Huaman <sup>1</sup> , M.L.T.M. Polizelli <sup>1</sup> , <sup>1</sup> University of São Paulo (USP) Campus Ribeirão Preto, Brazil, <sup>2</sup> Maringá State University, Brazil

[P1.76]	<b>Sewage biogas efficient purification by means of lignocellulosic waste-based activated carbons</b> E. Santos-Clotas <sup>1</sup> , A. Cabrera-Codony <sup>1</sup> , B. Ruiz <sup>1,2</sup> , E. Fuente <sup>1,2</sup> , M.J. Martin <sup>1</sup> , <sup>1</sup> University of Girona, Spain, <sup>2</sup> Instituto Nacional del Carbón (INCAR), Consejo Superior de Investigaciones Científicas (CSIC), Spain
[P1.77]	<b>Seasonal changes of anaerobic digestibility of harvested submerged macrophytes; Effect of lignin and hemicellulose contents</b> M. Fujiwara <sup>1</sup> , M. Koyama <sup>2</sup> , S. Akizuki <sup>1</sup> , K. Watanabe <sup>1</sup> , K. Ishikawa <sup>3</sup> , S. Ban <sup>4</sup> , T. Toda <sup>1</sup> , <sup>1</sup> Soka University, Japan, <sup>2</sup> Tokyo Institute of Technology, Japan, <sup>3</sup> Lake Biwa Environmental Research Institute, Japan, <sup>4</sup> University of Shiga Prefecture, Japan
[P1.78]	<b>Non-catalytic production of biodiesel from high acid value waste cooking oil</b> O. Aboelazayem <sup>1,2</sup> , M. Gadalla <sup>3,2</sup> , B. Saha <sup>1</sup> , <sup>1</sup> London South Bank University, UK, <sup>2</sup> The British University in Egypt, Egypt, <sup>3</sup> Port Said University, Egypt
[P1.80]	<b>Synthesis of triacylglycerol from residual glycerine using biocatalysts from <i>Jatropha curcas</i> L.</b> J.F. García Martín*, F.J. Alés Álvarez, L. Azanco Luque, M.M. Barbosa Marín, P. Álvarez Mateos, University of Seville, Spain
[P1.81]	<b>Determination of cetane number of waste cooking oil-derived biodiesel by near infrared spectroscopy</b> J.F. García Martín*, F.J. Alés Álvarez, M.C. López Barrera, L. García Suárez, P. Álvarez Mateos, University of Seville, Spain
[P1.82]	<b>Production of biodiesel from high-acidity residual oil generated in the waste cooking oils recycling industries</b> F.J. Guerrero Vacas <sup>1</sup> , J.F. García Martín*, P. Álvarez Mateos <sup>1</sup> , C.C. Barrios Sánchez <sup>2</sup> , M.C. Pérez Camino <sup>3</sup> , <sup>1</sup> University of Seville, Spain, <sup>2</sup> Research Centre for Energy, Environment and Technology, Spain, <sup>3</sup> Spanish National Research Council, Spain
[P1.83]	<b>Production of biomethane and value added compounds from strawberry and raspberry extrudates</b> A. Trujillo Reyes <sup>1,2</sup> , J. Cubero Cardoso <sup>1,2</sup> , G. Rodríguez Gutiérrez <sup>2</sup> , J.F. García Martín*, M. Rodríguez Galán <sup>1</sup> , R. Borja <sup>2</sup> , A. Serrano <sup>2</sup> , F. G. Feroso <sup>2</sup> , <sup>1</sup> University of Seville, Spain, <sup>2</sup> Spanish National Research Council, Spain
[P1.84]	<b>Constructed wetland systems for winery wastewater treatment: A life cycle assessment</b> L. Flores, J. García, M. Garff*, Universitat Politècnica de Catalunya (UPC), Spain
[P1.85]	<b>Life cycle assessment of low-cost digesters implemented in small-scale farms in Colombia</b> M. Garff*, I. Ferrer <sup>1</sup> , L. Castro <sup>2</sup> , H. Escalante <sup>1</sup> , <sup>1</sup> Universitat Politècnica de Catalunya, Spain, <sup>2</sup> Universidad Industrial de Santander, Colombia
[P1.86]	<b>Determination of kinetic parameters for the torrefaction of coconut endocarp -<i>Acrocomia aculeata</i>- in the temperature range 230-320 °C</b> C.M. Giesbrecht Rempel*, S.J. Duarte Chávez <sup>1</sup> , <sup>1</sup> Universidad Nacional de Asunción, Paraguay, <sup>2</sup> Université Paris-Saclay, France
[P1.87]	<b>Gasification of glutamic acid as model compound of N-rich biological wastes for the production of sustainable NH<sub>3</sub></b> N. Gil-Lalaguna <sup>1,2</sup> , Z. Afailal <sup>1</sup> , J.L. Sánchez <sup>1</sup> , G. Gea <sup>1</sup> , I. Fonts <sup>1,2</sup> , <sup>1</sup> Aragón Institute of Engineering Research (Universidad de Zaragoza), Spain, <sup>2</sup> Centro Universitario de la Defensa, Spain
[P1.88]	<b>Isolation of hydrocarbon degraded strains in petroleum and petrochemical plant</b> K. Glaopo*, Y. Laoong-u-thai, Burapha University, Thailand
[P1.89]	<b>Adding coffee pulp to sugarcane bagasse enhanced laccase activities of <i>Pycnoporus sanguineus</i> during solid-state fermentation for bioethanol production</b> E. González Bautista <sup>1,2</sup> , E. Alarcón Gutierrez <sup>5,6</sup> , N. Dupuy <sup>2</sup> , I. Gaimé-Perraud <sup>4,2</sup> , F. Ziarelli <sup>7,8</sup> , A.M. Farnet Da Silva <sup>1,2</sup> , <sup>1</sup> Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale, France, <sup>2</sup> Aix Marseille Université, France, <sup>3</sup> CNRS, France, <sup>4</sup> IRD, France, <sup>5</sup> Instituto de Biotecnología y Ecología Aplicada (INBIOTECA), Mexico, <sup>6</sup> Universidad Veracruzana, Mexico, <sup>7</sup> Spectropole Campus St Jérôme, France, <sup>8</sup> Fédération des Sciences Chimiques de Marseille, France
[P1.90]	<b>Characterization of humic acids in a continuous-feeding vermicomposting system</b> A. Hanc <sup>1</sup> , V. Enev <sup>2</sup> , T. Castkova <sup>1</sup> , M. Klucakova <sup>2</sup> , M. Pekar <sup>2</sup> , <sup>1</sup> Czech University of Life Sciences Prague, Czech Republic, <sup>2</sup> Brno University of Technology, Czech Republic
[P1.91]	<b>Performance of shredded and pelleted leaf litter in eco-cookstove as potential energy source</b> A. Hartawan*, N. Aditya, Y.S. Nugroho, Universitas Indonesia, Indonesia
[P1.92]	<b>Impact of nanoparticles on biogas production from poultry litter</b> A. Hassanein*, S. Lansing, R. Tikekar, University of Maryland, USA
[P1.93]	<b>Biofuel utilization and implication in ASEAN based on those cases of European Union and United States</b> S.J. Heo*, J.W. Choi, Seoul National University, Republic of Korea
[P1.94]	<b>Preparation of nanofibers from Japanese orange peel using a high-pressure homogenizer equipped with automatic pressure control system</b> A. Hiden <sup>1</sup> , T. Fuchikawa <sup>2</sup> , T. Yatsuzuka <sup>2</sup> , H. Uchimura <sup>1</sup> , <sup>1</sup> Ehime University, Japan, <sup>2</sup> KOS21 Company Limited, Japan
[P1.95]	<b>The influence of gasifier conditions on catalytic decomposition of tar in dual pyrolysis-gasification reactor</b> J. Husár*, P. Šuhaj, J. Haydary, K. Gazdová, Slovak University of Technology, Slovakia
[P1.96]	<b>Continuous synthesis of lactulose in packed-bed reactor with immobilized B-galactosidase</b> C. Guerrero <sup>1</sup> , C. Vera <sup>2</sup> , C. Aburto <sup>1</sup> , M. Gómez <sup>1</sup> , F. Valdivia <sup>1</sup> , A. Illanes*, <sup>1</sup> Pontificia Universidad Católica de Valparaíso, Chile, <sup>2</sup> Universidad de Santiago, Chile
[P1.97]	<b>Production of bioethanol from organic acid treated wheat straw</b> G. Barisik, A. Isci*, N. Kutlu, S. Bagder Elmaci, B. Akay, Ankara University, Turkey
[P1.98]	<b>Investigating ion transport and accumulation in a polyamide membrane during forward-Osmosis-driven dewatering of microalgae: A molecular dynamics study</b> J. Hlilong*, J.L. Moreno <sup>1</sup> , A.R. Villagrana <sup>1,2</sup> , K.I. Rojas <sup>1</sup> , G.P. Bernardo <sup>1</sup> , M. David <sup>1</sup> , R. Manrique <sup>1</sup> , A. Ubando <sup>1</sup> , A. Culaba <sup>1</sup> , N. Arboleda <sup>1</sup> , <sup>1</sup> De La Salle University, The Philippines, <sup>2</sup> The University of Arizona, USA, <sup>3</sup> National Institute of Technology, Japan
[P1.99]	<b>Continuous biocrude production from native microalgal biomass using a bench-scale tubular reactor</b> A. Jain*, S. Matsumoto, T. Aramaki, T. Gohara, J. Ito, R. Noguchi, M.M. Watanabe, M. Nakajima, S. Ichikawa, University of Tsukuba, Japan

[P1.100]	<b>Life cycle assessment of soil bioremediation technology</b> V. Jakubauskaite <sup>*1</sup> , A. Zukauskaite <sup>1</sup> , Z. Stasiskiene <sup>2</sup> , <sup>1</sup> Klaipeda University, Lithuania, <sup>2</sup> Kaunas University of Technology, Lithuania
[P1.101]	<b>Pre-separation of phenolics from saccharification substrate of empty fruit bunch of oil palm produced with KriciBiosugar® process</b> H. Kim, S-K. Jang <sup>*</sup> , C-D. Jeong, B-K. Song, J. Jegal, J-H. Yu, Korea Research Institute of Chemical Technology, Republic of Korea
[P1.102]	<b>Production of phenolic compounds by selective oxidation of lignin from high lignin containing biomass</b> S-K. Jang <sup>*</sup> , H. Kim, C-D. Jeong, J-H. Yu, Korea Research Institute of Chemical Technology, Republic of Korea
[P1.103]	<b>Conversion of organic wastes and wastewaters to carboxylic acids</b> E. Jankowska <sup>*</sup> , A. Duber, J. Chwialkowska, P. Oleskowicz-Popiel, Poznan University of Technology, Poland
[P1.104]	<b>Autohydrolysis improves impregnation performance of poplar sapwood chips against NaOH solution</b> X. Jiang <sup>*1,2</sup> , Q. Hou <sup>1</sup> , Z. Yue <sup>1</sup> , W. Liu <sup>1</sup> , J. Feng <sup>1</sup> , <sup>1</sup> Tianjin University of Science & Technology, China, <sup>2</sup> China National Pulp and Paper Research Institute Co., Ltd., China
[P1.105]	<b>Techno-economic analysis of simultaneous production of bioethanol and D-psicose from corn in modified dry grind process</b> A. Juneja <sup>*</sup> , G. Zhang, Y. Jin, V. Singh, University of Illinois at Urbana Champaign, USA
[P1.106]	<b>Effect of biochar surface chemistry on pyrolytic phenolic compound production from lignin</b> K.A. Jung <sup>*</sup> , H.J. Shin, Y.R. Oh, J.M. Park, POSTECH, Republic of Korea
[P1.107]	<b>Influence of crude glycerol addition on the biomass and lipid content of <i>C. orbicularis</i> CPC1215</b> A.L. Kao <sup>*</sup> , C.C. Chen, C.T. Tsai, H.Y. Cheng, J.H. Chen, Z.C. Tsai, Green Technology Research Institute, CPC Corporation, Taiwan
[P1.108]	<b>Next-generation biosurfactant production using digestate from anaerobic digestion in a biorefinery approach</b> G. Kaur <sup>*</sup> , J.W.C. Wong, Hong Kong Baptist University, Hong Kong
[P1.109]	<b>Membrane distillation of process water for performance optimization of the Växtkraft biogas plant in Sweden</b> E.U. Khan <sup>*</sup> , A. Nordberg, Swedish University of Agricultural Sciences-SLU, Sweden
[P1.110]	<b>nitrogen recovery in aquaponics – Turning aquaculture waste to organic crops</b> S. Wongkiew <sup>1</sup> , B.N. Popp <sup>1</sup> , K. Chandran <sup>2</sup> , S.K. Khanal <sup>*1</sup> , <sup>1</sup> University of Hawaii at Manoa, USA, <sup>2</sup> Columbia University, USA
[P1.111]	<b>Cadmium(II) adsorption using modified hydrochar prepared from Trimmed tree branches using acid-assisted hydrothermal carbonization</b> R. Khoshbouy <sup>*</sup> , R. Lejiu, F. Takahashi, K. Yoshikawa, Tokyo Institute of Technology, Japan
[P1.112]	<b>Valorisation of agro-industrial wastes (orange peels) as biosorbent for the removal of pharmaceutical pollutants (antibiotics) from wastewaters</b> F. Mohellebi, F.K. Kies <sup>*</sup> , I. Ait Amer Meziane, Ecole Nationale Polytechnique, Algeria
[P1.113]	<b>Effect of hemicellulose degradation using magnetic solid acid catalyst in supercritical water hydrolysis from <i>Quercus mongolica</i></b> J-H. Kim <sup>*1</sup> , J-H. Choi <sup>1</sup> , S-M. Cho <sup>1</sup> , S-Y. Park <sup>1</sup> , H-S. Jeong <sup>2</sup> , S-M. Lee <sup>2</sup> , I-G. Choi <sup>1,3</sup> , <sup>1</sup> Seoul National University, Republic of Korea, <sup>2</sup> National Institute of Forest Sciences, Republic of Korea, <sup>3</sup> Research Institute of Agriculture and Life Sciences, Republic of Korea, <sup>4</sup> Institute of Green-Bio Science and Technology, Republic of Korea
[P1.114]	<b>Greenhouse gases emissions from open-air storage of dairy manure in North China: A lab-scale experiment</b> G.W. Kimari <sup>*1</sup> , W.Z. Jiang <sup>1</sup> , <sup>1</sup> China Agricultural University, China, <sup>2</sup> Renasant Environment and Energy Solutions, Kenya
[P1.115]	<b>Local organic wastes treatment by using simple anaerobic bag digester under ambient temperature in Ethiopia</b> M. Ahmed <sup>1</sup> , G. Niguse <sup>1</sup> , B. Belay <sup>1,2</sup> , T. Koder <sup>*3</sup> , N. Mizuno <sup>3</sup> , S. Akizuki <sup>3</sup> , T. Toda <sup>3</sup> , S. Sato <sup>3</sup> , <sup>1</sup> Jimma University, Ethiopia, <sup>2</sup> Injibara University, Ethiopia, <sup>3</sup> Soka University, Japan
[P1.116]	<b>Refractive extraction and transesterification of microalgae oil with ethanol</b> M. Kondratavicius <sup>*</sup> , M. Gumbyte, V. Makareviciene, Aleksandras Stulginskis University, Lithuania
[P1.117]	<b>Two-stage autohydrolysis and mechanical refining treatment to maximize sugar recovery from sweet sorghum bagasse (SSB)</b> B. Koo <sup>*1</sup> , J. Park <sup>2</sup> , R. Gonzalez <sup>2</sup> , H. Jameel <sup>2</sup> , S. Park <sup>2</sup> , <sup>1</sup> Korea Institute of Industrial Technology (KITECH), Republic of Korea, <sup>2</sup> North Carolina State University, USA
[P1.118]	<b>Evaluating the effect of salt inhibition on process performance and microbial community in biogas reactors</b> P.G. Kougias <sup>*</sup> , H. Sun, P. Tsapekos, A. Rudatis, L. Treu, I. Angelidaki, Technical University of Denmark, Denmark
[P1.119]	<b>Glycerol-based pretreatments for enhancing delignification of <i>Miscanthus</i> and <i>Salix viminalis</i></b> M. Kuglarz <sup>*1</sup> , K. Dabkowska <sup>2</sup> , M. Wyszomirski <sup>1</sup> , M. Rom <sup>1</sup> , <sup>1</sup> University of Bielsko-Biala, Poland, <sup>2</sup> Warsaw University of Technology, Poland
[P1.120]	<b>Effect of digestate from methane fermentation for the recovery of decolored laver seaweed</b> K. Kuroda <sup>*1</sup> , K. Otsuka <sup>1</sup> , R. Nishikawa <sup>2</sup> , <sup>1</sup> Osaka Prefecture University, Japan, <sup>2</sup> Daiei Kankyo Corporation, Japan
[P1.121]	<b>Study of the <i>in vitro</i> activity of a novel killer protein, produced by the yeast <i>Pichia kluyveri</i>, on food and beverage spoilage yeasts</b> F.Z.K. Labbani <sup>*1,2</sup> , L. Bennamoun <sup>1</sup> , S. Djekrif-Dakhmouche <sup>1,2</sup> , B. Turchetti <sup>3</sup> , Z. Meraihi <sup>1</sup> , P. Buzzini <sup>3</sup> , <sup>1</sup> Mentouri University, Algeria, <sup>2</sup> Ecole Normale Supérieure des Enseignants, Algeria, <sup>3</sup> University of Perugia, Italy
[P1.122]	<b>Food waste co-digestion in Germany and the United States: From the lab to full-scale systems</b> S. Lansing <sup>*1</sup> , B. Hülsemann <sup>2</sup> , M.S. Lisboa <sup>1</sup> , A. Choudhury <sup>1</sup> , H. Oechsner <sup>2</sup> , <sup>1</sup> University of Maryland, USA, <sup>2</sup> University of Hohenheim, Germany
[P1.123]	<b>Fate and transport of antibiotics, genes and nutrients in anaerobic digestion systems</b> J. Schueler <sup>1</sup> , S. Lansing <sup>*1</sup> , G. Felton <sup>1</sup> , J. Hurst <sup>2</sup> , K. Naas <sup>2</sup> , E. Crossette <sup>3</sup> , L. Sassoubre <sup>2</sup> , K. Wigginton <sup>3</sup> , L. Raskin <sup>3</sup> , J. Oliver <sup>1,4</sup> , <sup>1</sup> University of Maryland, USA, <sup>2</sup> University at Buffalo, USA, <sup>3</sup> University of Michigan, USA, <sup>4</sup> Cornell University, USA
[P1.124]	<b>Mature landfill leachate as a medium for hydrodynamic cavitation of brewery spent grain</b> M. Lebiocka <sup>*1</sup> , A. Montusiewicz <sup>1</sup> , S. Pasieczna - Patkowska <sup>2</sup> , S. Gulkowski <sup>1</sup> , <sup>1</sup> Lublin University of Technology, Poland, <sup>2</sup> Maria Curie Skłodowska University, Poland

[P1.125]	<b>An optimization strategy via taguchi's approach for bioaugmentation of the anaerobic digestion of lignocellulosic substrates</b> J.T.E. Lee*, Q. Wang, Z. Liu, J.Z. He, Y.W. Tong, <i>National University of Singapore, Singapore</i>
[P1.126]	<b>Influence of molecular weight and functional group on lignin nanoparticle formation</b> J.H. Lee*, S.Y. Park, X. Jin, I-G. Choi, J.W. Choi, <i>Seoul National University, Republic of Korea</i>
[P1.127]	<b>Continuous plastic film mulching accelerates soil carbon stock changes in temperate upland soil</b> J.G. Lee*, S.R. Cho, P.J. Kim, <i>Gyeongsang National University, Republic of Korea</i>
[P1.128]	<b>Effect of pre-treatment on ultra-structure of pine needle forest litter: exploring potential of forest biomass for renewable bioenergy generation</b> R. Mahajan* <sup>1</sup> , S. Bansal <sup>1</sup> , A.K. Puniya <sup>2</sup> , G. Goel <sup>1</sup> <sup>1</sup> Jaypee University of Information Technology, India, <sup>2</sup> Guru Angad Dev Veterinary and Animal Sciences University, India
[P1.129]	<b>Characterization and prospects of biomass available in northeast India for syngas generation using fluidized bed gasifier</b> S. Das, H. Nath* <i>Tripura University (A Central University), India</i>

**Poster Session 2**  
**Monday 17<sup>th</sup> September 2018, 12:30-13:30**  
**Tuesday 18<sup>th</sup> September 2018, 09:50-10:20, 15:25-16:00**  
**Room: Tramuntana 1**

[P2.01]	<b>Supercritical dimethyl carbonate transesterification of sesame oil with metal oxide</b> H-S. Lee*, H. Seo, D. Kim, Y-W. Lee, <i>Seoul National University, Republic of Korea</i>
[P2.02]	<b>Characterization of specific activity and hydrolytic properties of cellulase enzyme cocktail produced by <i>Trichoderma reesei</i> on different carbon sources</b> Y.G. Lee*, C.H. Oh, H.J. Bae, <i>Chonnam National University, Republic of Korea</i>
[P2.03]	<b>Effect of plastic film mulching on global warming potential and greenhouse gas intensity in temperate maize upland field for 2 years</b> J.G. Lee*, S.R. Cho, P.J. Kim, <i>Gyeongsang National University, Republic of Korea</i>
[P2.04]	<b>Modular pathway engineering of key precursor supply with balancing cell growth and production for improved N-acetylneuraminic acid biosynthesis in <i>Bacillus subtilis</i></b> J.H. Li*, Y.F. Liu, X.L. Zhang, G.C. Du, J. Chen, <i>Jiangnan University, China</i>
[P2.05]	<b>Nitrogen and phosphorus removal from wastewater by the microalgae</b> F.H. Li*, S.C. Srivatsa, W. Batchelor, <i>Monash university, Australia</i>
[P2.06]	<b>Characteristics studies of bio-oil produced via fixed-bed catalytic pyrolysis of the marine microalgae <i>tetraselmis suecica</i></b> F.C. Li*, W. Batchelor, <i>Monash university, Australia</i>
[P2.07]	<b>Effects of three factors (substrate concentration, hydraulic retention time and headspace pressure) on acid production of protein by anaerobic fermentation</b> L.G. Li*, Y.Y. Wang, Y. Li, <i>Huazhong Agricultural University, China</i>
[P2.08]	<b>Effect of hydraulic retention time, organic loading rate and headspace pressure on the production of short-chain volatile fatty acids from glucose, glycerol and protein</b> Y.Y. Wang, L.G. Li*, Y. Liu, <i>Huazhong Agricultural University, China</i>
[P2.09]	<b>Improving biomethane production from anaerobic digestion of seaweed by hydrothermal pretreatment</b> R. Lin* <sup>1</sup> , J. Cheng <sup>2</sup> , L. Ding <sup>2</sup> , J. Murphy <sup>1</sup> , <sup>1</sup> University College Cork, Ireland, <sup>2</sup> Zhejiang University, Ireland
[P2.10]	<b>Isolation and characterization of lignin from residues after hemicelluloses pre-extraction of corncobs assisted by mechanical pretreatment and enzymatic hydrolysis</b> Y. Wang, Q.X. Hou, W. Liu*, <i>Tianjin University of Science, China</i>
[P2.11]	<b>Heavy metal solubilization during the acidogenic phase of anaerobic digestion</b> A.K. Lohar*, T.R. Sreekrishnan, <i>Indian Institute of Technology Delhi, India</i>
[P2.12]	<b>Simultaneous anaerobic digestion and filtration of volatile fatty acid food waste using tubular membrane</b> L. Lukitawesa* <sup>1</sup> , R.J. Patinoh <sup>1</sup> , R. Millati <sup>2</sup> , M.J. Taherzadeh <sup>1</sup> , <sup>1</sup> University of Borås, Sweden, <sup>2</sup> Universitas Gadjah Mada, Sweden
[P2.13]	<b>Effect of effluent recirculation in two stage anaerobic digestion of citrus waste</b> L. Lukitawesa* <sup>1</sup> , R. Millati <sup>2</sup> , M.J. Taherzadeh <sup>1</sup> , <sup>1</sup> University of Borås, Sweden, <sup>2</sup> Universitas Gadjah Mada, Sweden
[P2.14]	<b>Performance of two-phase food waste anaerobic digestion with different leachate recirculation ratios for LBR</b> L. Luo*, J. Wong, <i>Hong Kong Baptist University, Hong Kong</i>
[P2.15]	<b>Inverse fluidized bed reactor for biological wastewater treatment</b> N. Maneesh*, A. Babu, T.R. Sreekrishnan, <i>Indian Institute of Technology Delhi, India</i>
[P2.16]	<b>Acidogenic potential of solid wastes and industrial wastewaters as precursors for polyhydroxyalkanoates production</b> G. Montiel-Jarillo, M. Ramal, C. Ramos, T. Gea, A. Artola, J. Carrera, M.E. Suárez-Ojeda, G. Mannina*, <i>Universitat Autònoma de Barcelona, Spain</i>
[P2.17]	<b>Brazilian starchy biomass utilization for production of selenium-enriched yeasts for animal feed</b> S.E. Martiniano, R.R. Philippini, P.R.F. Marcelino*, J.C. Santos, S.S. da Silva, <i>School of Engineering of Lorena, University of São Paulo, Brazil</i>
[P2.18]	<b>Enhancement of microalgae energy recovery by hydrothermal carbonization</b> J.D. Marín-Batista*, J. Villamil, A. Vilar, E. Diaz, A.F. Mohedano, J.J. Rodriguez, M.A. De la Rubia, <i>Universidad Autonoma de Madrid, Spain</i>
[P2.19]	<b>From sawdust to pellets to pulverized wood - the mechanical processing pathway of European beech and Austrian pine</b> M. Masche* <sup>1</sup> , M. Puig-Arnavat <sup>1</sup> , P.A. Jensen <sup>1</sup> , J.K. Holm <sup>2</sup> , S. Clausen <sup>1</sup> , J. Ahrenfeldt <sup>1</sup> , U.B. Henriksen <sup>1</sup> , <sup>1</sup> Technical University of Denmark, Denmark, <sup>2</sup> Ørsted, Denmark

[P2.20]	<b>Chlorella sp. derived biodiesel as sustainable energy alternative for Chihuahua industries at Mexico</b> A. Medina-Antillon <sup>*1,3</sup> , A. Moghaddam-Gheshlagh <sup>2</sup> , D. Antillon Armenta <sup>3</sup> , <sup>1</sup> Centro de Desarrollo de Estudios Superiores (CDES), Mexico, <sup>2</sup> Universidad Autónoma de Sinaloa, Mexico, <sup>3</sup> Misión al Desarrollo MIDE- Sociedad Civil, Mexico
[P2.21]	<b>Selection of microalga strains for biofuels production under different photoperiods</b> I. Megía-Hervás <sup>*1,2</sup> , G. Vicente <sup>1</sup> , F.G. Witt-Sousa <sup>2</sup> , L.F. Bautista <sup>1</sup> , V. Morales <sup>1</sup> , A. Sánchez-Bayo <sup>1</sup> , R. Rodríguez <sup>1</sup> , <sup>1</sup> Universidad Rey Juan Carlos, Spain, <sup>2</sup> AlgaEnergy S.A., Spain
[P2.22]	<b>Effects of alkaline pretreatment on thermal and chemical properties of selected rice husk varieties in relation to activated carbon production</b> E.M. Menya <sup>*1</sup> , P.W.O. Olupot <sup>1</sup> , H.S. Storz <sup>3</sup> , M.L. Lubwama <sup>1</sup> , Y.K. Kiros <sup>4</sup> , M.J.J. John <sup>5</sup> , <sup>1</sup> Makerere University, Uganda, <sup>2</sup> Gulu University, Uganda, <sup>3</sup> Thuenen Institute of Agricultural Technology, Germany, <sup>4</sup> KTH Royal Institute of Technology, Sweden, <sup>5</sup> Council for Scientific and Industrial Research Port Elizabeth, South Africa
[P2.23]	<b>Semi-continuous reverse membrane bioreactor in two-stage anaerobic digestion of citrus waste</b> T. Kurniawan <sup>1</sup> , L. Lukitawesa <sup>2</sup> , I. Hanifah <sup>1</sup> , R. Wikandari <sup>1</sup> , R. Millati <sup>*1</sup> , M. Taherzadeh <sup>2</sup> , C. Niklasson <sup>3</sup> , <sup>1</sup> Universitas Gadjah Mada, Indonesia, <sup>2</sup> University of Borås, Sweden, <sup>3</sup> Chalmers University of Technology, Sweden
[P2.24]	<b>Experimental and numerical process stability analysis of the anaerobic co-digestion of fruit and vegetable wastes with dairy-cows' manure.</b> L.R. Miramontes-Martínez <sup>*1</sup> , J.E. Botello-Álvarez <sup>2</sup> , R. Gomez-Gonzalez <sup>1</sup> , S. Rodríguez-Valderrama <sup>1</sup> , P. Rivas-García <sup>1</sup> , <sup>1</sup> Universidad Autonoma de Nuevo Leon, Mexico, <sup>2</sup> Instituto Tecnológico de Celaya, Mexico
[P2.25]	<b>End of life of biodegradable plastics supports through anaerobic digestion: Case study of coffee capsules</b> G. Cazaudehore <sup>1,3</sup> , C. Vasmara <sup>2</sup> , R. Guyoneaud <sup>3</sup> , P. Evon <sup>4</sup> , R. Marchetti <sup>2</sup> , C. Raynaud <sup>4</sup> , L. Labonne <sup>4</sup> , C. Jacquet <sup>1</sup> , F. Monlau <sup>*1</sup> , <sup>1</sup> APESA-Plateau Technique, France, <sup>2</sup> Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria, Italy, <sup>3</sup> Universite' de Pau et des Pays de l'Adour (UPPA), France, <sup>4</sup> Université de Toulouse, France
[P2.26]	<b>Comparison of dry vs. wet milling treatment for improving sugars recovery from solid anaerobic digestate: a step towards a biorefinery integration.</b> F. Monlau <sup>*1</sup> , C. Sambusiti <sup>1</sup> , A. Barakat <sup>1</sup> , <sup>1</sup> APESA-Plateau Technique, France, <sup>2</sup> INRA-IATE, France
[P2.27]	<b>Simultaneous Biohydrogen production and dairy wastewater treatment by biofilms developed in Opuntia imbricata and its metagenomic study</b> I.M.M. Moreno-Dávila <sup>*</sup> , T.K. Morales-Martínez, M.M. Rodríguez-Garza, J.A. Rodríguez-De la Garza, L.J. Ríos-González, Y. Garza-García, <i>Autonomous University of Coahuila, Mexico</i>
[P2.28]	<b>Optimization of acid pretreatment assisted by microwave and ultrasound of Agave lechuguilla biomass.</b> T.K. Morales-Martínez, I.M. Moreno-Dávila <sup>*</sup> , J.A. Rodríguez-De la Garza, L. Sepúlveda-Torre, M.D. Dávila-Medina, L.J. Rios-González, <i>Universidad Autónoma de Coahuila, Mexico</i>
[P2.29]	<b>Production of acetone-butanol-ethanol from Agave lechuguilla hydrolysates using a co-culture of Clostridium acetobutylicum and Bacillus subtilis</b> A. Oliva-Rodríguez <sup>1</sup> , T.K. Morales-Martínez <sup>1</sup> , M. Moreno-Dávila <sup>*1</sup> , J.A. Rodríguez-De la Garza <sup>1</sup> , J. Quintero <sup>2</sup> , G. Aroca <sup>2</sup> , J.C. Gentina <sup>2</sup> , L.J. Ríos-González <sup>1</sup> , <sup>1</sup> Universidad Autónoma de Coahuila, Saltillo, Coahuila México, Mexico, <sup>2</sup> Pontificia Universidad Católica de Valparaíso, Chile
[P2.30]	<b>Benzene, toluene and xylene biodegradation using a microbial fuel cell</b> D. Rodríguez-Hernández <sup>1</sup> , J.A. Rodríguez-de la Garza <sup>1</sup> , L.J. Ríos-González <sup>1</sup> , Y. Garza-García <sup>1</sup> , M. Rodríguez-Garza <sup>1</sup> , M. Moreno-Dávila <sup>*1</sup> , S.Y. Martínez-Amador <sup>2</sup> , <sup>1</sup> Universidad Autónoma de Coahuila, Mexico, <sup>2</sup> Universidad Autonoma Agraria Antonio Narro, Mexico
[P2.31]	<b>Treatment of oil field produced water containing petroleum hydrocarbons with electrocoagulation biosystem</b> I. mousa <sup>*</sup> , S. Bedair, M. Fawzy, A. othman, <i>Genetic engineering and biotechnology research institute, Egypt</i>
[P2.32]	<b>Post pyrolysis pre-treatment and pyrolysis processes for catalytic degradation of cellulose, hemicellulose and lignin over zeolite, clay, MCM-41 and FCC cracking catalysts</b> I. Muhammad <sup>*</sup> , G. Manos, <i>University College London, UK</i>
[P2.33]	<b>Optimization of protic ionic liquid pretreatment of sugarcane bagasse for 2G ethanol production</b> P.Y.S. Nakasu <sup>*1,3</sup> , S.C. Rabelo <sup>2</sup> , J.P. Hallett <sup>3</sup> , A.C. Costa <sup>1</sup> , <sup>1</sup> University of Campinas, Brazil, <sup>2</sup> São Paulo State University, Brazil, <sup>3</sup> Imperial College London, UK
[P2.34]	<b>Assessment of the developed algae's cultivation techniques for removing pollutants in saline wastewater</b> P.V.H. Nhat <sup>*1</sup> , H.H. Ngo <sup>1</sup> , W.S. Guo <sup>1</sup> , Y. Liu <sup>1</sup> , S.W. Chang <sup>2</sup> , D.D. Nguyen <sup>2</sup> , P.D. Nguyen <sup>3</sup> , X.T. Bui <sup>3</sup> , <sup>1</sup> University of Technology Sydney, Australia, <sup>2</sup> Kyonggi University, Republic of Korea, <sup>3</sup> Ho Chi Minh City University of Technology, Viet Nam
[P2.35]	<b>Production of cellulose, hemi-derived sugars and functional lignin by dilute acid hydrolysis of wood meal with monophenol</b> H. Nonaka <sup>*</sup> , T. Hata, <i>Mie University, Japan</i>
[P2.36]	<b>Transferability of laboratory results on methane yield to full-scale biogas plants</b> H. Oechsner <sup>*1</sup> , B. Hülsemann <sup>1</sup> , S. Lansing <sup>2</sup> , S. Khanal <sup>3</sup> , <sup>1</sup> University of Hohenheim, Germany, <sup>2</sup> University of Maryland, College Park, MD, USA, <sup>3</sup> University of Hawaii, USA
[P2.37]	<b>Hydrodeoxygenation of bio-oil over metal titanium oxide on carbon bead for production of high quality biofuel in continuous reactor</b> S. Oh <sup>*</sup> , I-G. Choi, J.W. Choi, <i>Seoul National University, Republic of Korea</i>
[P2.38]	<b>Characterization of acidic endoglucanase Cel12g from Gloeophyllum trabeum and its synergistic effects on HPAC-pretreated lignocellulose</b> C.H. Oh <sup>*</sup> , Y.G. Lee, H.J. Bae, <i>Chonnam National University, Republic of Korea</i>
[P2.39]	<b>Recovery and enhancement of dark fermentative hydrogen production after temperature perturbations</b> O. Okonkwo <sup>*1</sup> , A-M. Lakaniemi <sup>1</sup> , E. Trably <sup>2</sup> , R. Escudie <sup>2</sup> , R. Mangayil <sup>1</sup> , V. Santala <sup>1</sup> , M. Karp <sup>1</sup> , <sup>1</sup> Tampere University of Technology, Finland, <sup>2</sup> Laboratoire de Biotechnologie de l'Environnement, France
[P2.40]	<b>Fuel examination of invasive alien plants and tropical hardwoods for pyro-gasification feedstock</b> N.M. Okoro <sup>*1,2</sup> , K.G. Harding <sup>1</sup> , M.O. Daramola <sup>1</sup> , <sup>1</sup> University of the Witwatersrand, South Africa, <sup>2</sup> Federal University of Technology, Owerri, Nigeria

[P2.41]	<b>The role of ethanol in carboxylic fatty acids production from acid whey</b> A. Duber <sup>1</sup> , R. Zagrodnik <sup>1,2</sup> , J. Chwialkowska <sup>1</sup> , P. Oleskowicz-Popiel <sup>1*</sup> , <sup>1</sup> Poznan University of Technology, Poland, <sup>2</sup> Adam Mickiewicz University, Poland
[P2.42]	<b>Designing reactor microbiomes for chemical production from organic waste</b> M. Lezyk, N. Gutowska, A. Duber, E. Jankowska, P. Oleskowicz-Popiel*, Poznan University of Technology, Poland
[P2.43]	<b>Combined alkaline-biological pretreatment on coffee pulp for bioethanol production</b> M.L. Osorio*, E. Alarcón, J.A. García, Universidad Veracruzana, Mexico
[P2.44]	<b>Antibiotic stress and light intensity: Two major factors involved in the accumulation of carotenoid pigments In green microalgae isolates</b> O. Oyebamiji <sup>1,2</sup> , W. Boeing <sup>2</sup> , F. Holguin <sup>2</sup> , P. Cooke <sup>2</sup> , O. Amund <sup>1</sup> , M. Ilori <sup>1</sup> , <sup>1</sup> University of Lagos, Nigeria, <sup>2</sup> New Mexico State University, USA
[P2.45]	<b>Green microalgae species cultured in textile wastewaters for biomass generation and biodegradation of heavy metals and chromogenic substances.</b> O. Oyebamiji <sup>1,2</sup> , W. Boeing <sup>2</sup> , F. Holguin <sup>2</sup> , O. Amund <sup>1</sup> , M. Ilori <sup>1</sup> , <sup>1</sup> University of Lagos, Nigeria, <sup>2</sup> New Mexico State University, USA
[P2.46]	<b>Set-up of operating conditions in airlift photo-bioreactors for microalgae cultivation in integrated energy production processes</b> O. Paladino*, M. Neviani, Università di Genova, Italy
[P2.47]	<b>Development of a low-cost monitoring system and operating database for microalgae cultivation in photobioreactors</b> O. Paladino*, F. Fissore <sup>2</sup> , A. Moranda <sup>1</sup> , <sup>1</sup> Università di Genova, Italy, <sup>2</sup> Università di Padova, Italy
[P2.48]	<b>Technological challenges, advancements and innovations in lignocellulosic based biorefinery for fuels and chemicals</b> R. Sindhu <sup>1</sup> , P. Binod <sup>1</sup> , N. Vivek <sup>1</sup> , S.H. Hazeena <sup>1</sup> , A. Pandey <sup>2*</sup> , <sup>1</sup> CSIR-National Institute for Interdisciplinary Science and Technology, India, <sup>2</sup> CSIR- Indian Institute of Toxicology Research, India
[P2.49]	<b>Effect of the pH on the cell population distribution in a batch culture of Clostridium beijerinckii for the production of butanol</b> I. Paredes*, J. Quintero, K. Guerrero, S. Mau, R. Conejeros, J.C. Gentina, G. Aroca, Pontificia Universidad Católica de Valparaíso, Chile
[P2.50]	<b>Characterization of biochar from various biomass produced by slow pyrolysis at 500 oC</b> J. Park <sup>1*</sup> , S. Yu <sup>1</sup> , M. Kim <sup>1</sup> , C. Ryu <sup>1</sup> , J. Park <sup>2</sup> , <sup>1</sup> Sungkyunkwan University, Republic of Korea, <sup>2</sup> Korea Electric Power Corporation, Republic of Korea
[P2.51]	<b>Towards the era of zero emission air travel: Evaluation of future demand and supply of sustainable biomass for aviation biofuel</b> F. Pashaei Kamali*, Y.T. Lyu, P. Osseweijer, J.A. Posada, Delft University of technology, The Netherlands
[P2.52]	<b>An integrated approach for the utilization of waste generated from natural indigo dye production process</b> L. Pattanaik*, S.N. Naik, P. Hariprasad, Indian institute of Technology Delhi, India
[P2.53]	<b>Alternative fuels for marine applications: Methanol-biodiesel-diesel blends</b> T. Paulauskiene*, M. Bucas, A. Kasperaviciute, M. Matiliunaite, Klaipeda University, Lithuania
[P2.54]	<b>Bioelectrochemical CO<sub>2</sub> reduction into formate using bug juice from acetogenic bacteria</b> P. Piatek*, A. Fazi, N. Xafenias, Chalmers University of Technology, Sweden
[P2.55]	<b>Enzymatic hydrolysis of lignocellulosic biomass to obtain bioenergy from Mycothermus thermophilus and Trichoderma reesei RP98 enzymes produced using different agro-industrial residues</b> A.S.A. Scarcella, T.M. Pasin, T.B. De Oliveira, R.C. De Lucas, E.N. Freitas, M.L.T.M. Polizeli*, Universidade de São Paulo - FMRP, Brazil
[P2.56]	<b>Recent progress in efficient bioethanol production from lignocellulosics via acetic acid fermentation</b> S. Saka, H. Rabemanantsoa*, E. Minami, H. Kawamoto, Kyoto University, Japan
[P2.57]	<b>Algae-based municipal wastewater treatment (tertiary) and value-added products recovery</b> S. Rani*, R. Chowdhury, Indian Institute of Technology, Roorkee, India
[P2.58]	<b>Production of high calorific biogas with incorporated fermentation &amp; bio-electrochemical system</b> P.P. Ravi*, A. Lemmer, University of Hohenheim, Germany
[P2.59]	<b>Optimisation of solid-state fermentation using spent coffee waste as substrate for Xylanase production</b> R. Ravindran*, A.K. Jaiswal <sup>1</sup> , G. Williams <sup>2</sup> , <sup>1</sup> School of Food Science and Environmental Health, DIT, Ireland, <sup>2</sup> School of Biological Sciences, DIT, Ireland
[P2.60]	<b>Thermostable <math>\alpha</math>-amylase production by Bacillus stearothermophilus utilising Brewer's spent grain hydrolysate</b> R. Ravindran*, A.K. Jaiswal <sup>1</sup> , G. Williams <sup>2</sup> , <sup>1</sup> School of Food Science and Environmental Health, DIT, Ireland, <sup>2</sup> School of Biological Sciences, DIT, Ireland
[P2.61]	<b>Extraction and recovery of phosphorous from process waters after hydrothermal treatment of algae</b> I. Razaq*, A.B. Ross, University of Leeds, UK
[P2.62]	<b>Characterisation of the biocrude from hydrothermal liquefaction: What's in the high molecular weight fraction?</b> I. Razaq <sup>1</sup> , A.M. Smith <sup>2</sup> , S. Sudron <sup>1</sup> , A.B. Ross <sup>1</sup> , <sup>1</sup> University of Leeds, UK, <sup>2</sup> Aarhus University, Denmark
[P2.63]	<b>Optimization of boiler operation conditions for heating of greenhouses using crop residues</b> J.V. Reinoso Moreno <sup>1</sup> , G. Pinna Hernández <sup>1</sup> , J.A. Sánchez Molina <sup>1</sup> , M.D. Fernández Fernández <sup>1,2</sup> , J.C. López Hernández <sup>1,2</sup> , F.G. Acien Fernández <sup>1</sup> , <sup>1</sup> University of Almería, Spain, <sup>2</sup> Cajamar foundation, Spain
[P2.64]	<b>Integration of 1G-2G bioethanol and biodiesel industries through utilization of vinasse as substrate for oleaginous fungus cultivation</b> C.E.R. Reis*, A.K.F. Carvalho, H.B.S. Bento, H.F. De Castro, University of São Paulo, Brazil
[P2.65]	<b>Biohydrogen production in uniform distribution of inoculum mode in ascendant flow reactor. Effect of Hydraulic Retention Time (HRT)</b> L.M. Reyna Gómez*, A. Cruz-López, J.M. Alfaro, S.I. Suárez-Vázquez, Universidad Autónoma de Nuevo León, Mexico
[P2.66]	<b>Experimental investigations of biogas production using different anaerobic digestion processes of byproducts coming from coffee industry.</b>



	V.A. Riggio*, D. Panepinto, G. Campo, A. Cerutti, M. Zanetti, <i>Politecnico di Torino, Italy</i>
[P2.67]	<b>Hydrothermal treatment of poplar wood: Morphological differences and profiles of hemicellulose solubilization</b> S. Rivas*, V. Rigual, A. Ovejero-Pérez, M. Olié, V. Alonso, J.C. Dominguez, F. Rodriguez, <i>Complutense University of Madrid, Spain</i>
[P2.68]	<b>Green processes for the valorization of waste hazelnut shells: Manufacture and characterization of oligosaccharides with potential bioactive properties</b> S. Rivas* <sup>1</sup> , A. Moure <sup>2</sup> , V. Santos <sup>2</sup> , F. Rodriguez <sup>1</sup> , J.C. Parajó <sup>2</sup> , <sup>1</sup> Complutense University of Madrid, Spain, <sup>2</sup> University of Vigo, Spain
[P2.69]	<b>The influence of the total solid content on the stability of semi-batch dry-thermophilic anaerobic digestion of agricultural waste</b> S. Riya* <sup>1</sup> , K. Suzuki <sup>1</sup> , L. Meng <sup>1</sup> , S. Zhou <sup>2</sup> , A. Terada <sup>1</sup> , M. Hosomi <sup>1</sup> , <sup>1</sup> Tokyo University of Agriculture and Technology, Japan, <sup>2</sup> Shanghai Academy of Agricultural Sciences, China
[P2.70]	<b>Valorisation of hydrocolloid and fibre industry wastes as pharmaceutical and personal care products adsorbent</b> E. Rosales*, E. Terradillo, M. Pazos, M.A. Sanroman, <i>University of Vigo, Spain</i>
[P2.71]	<b>Advanced oxidation processes: a technology to enhance the adsorbent properties of agroindustrial wastes</b> E. Rosales*, G. Lama, M. Pazos, M.A. Sanroman, <i>University of Vigo, Spain</i>
[P2.72]	<b>Kinetics of free fatty acid esterification in used cooking oil using sulfonated hypercrosslinked exchange resin as catalyst</b> N.A. Roslan*, N.M. Yunus, S.Z. Abidin, N. Abdullah, <i>Universiti Malaysia Pahang, Malaysia</i>
[P2.73]	<b>Biochar from spent coffee grounds for catalytic and environmental applications</b> E. Rosson* <sup>1</sup> , P. Sgarbossa <sup>1</sup> , M. Mozzon <sup>1</sup> , S. Bogianni <sup>1</sup> , S. Carturan <sup>1</sup> , E. Moretti <sup>2</sup> , L. Storaro <sup>2</sup> , P. Conte <sup>3</sup> , A. Ribeiro <sup>4</sup> , A. Pombeiro <sup>4</sup> , <sup>1</sup> University of Padova, Italy, <sup>2</sup> University of Venezia, Italy, <sup>3</sup> University of Palermo, Italy, <sup>4</sup> University of Lisbon, Portugal
[P2.74]	<b>Hydrochars from industrial macroalgae "Gelidium Sesquipedale" biomass wastes. Characterization and agronomic properties</b> A. Méndez <sup>1</sup> , G. Gascó <sup>1</sup> , B. Ruiz* <sup>1</sup> , E. Fuente <sup>1</sup> , <sup>1</sup> Technical University of Madrid, Spain, <sup>2</sup> Biocarbon & Sustainability Group. Instituto Nacional del Carbón (INCAR), Spain
[P2.75]	<b>Application of hybrid membranes filled with iron-encapsulated carbon nanotubes (Fe@MWCNTs) and zeolite A in CO<sub>2</sub> separation from gas mixtures. Modeling of gas permeation behavior</b> A. Rybak* <sup>1</sup> , A. Rybak <sup>1</sup> , W. Kaszuwara <sup>2</sup> , S. Boncel <sup>1</sup> , <sup>1</sup> The Silesian University of Technology, Poland, <sup>2</sup> Warsaw University of Technology, Poland
[P2.76]	<b>Apple fruit juice for bacterial cellulose - synthesised by <i>Gluconacetobacter xylinus</i></b> O. Zandraa, N. Saha*, P. Saha, <i>Tomas Bata University in Zlin, Czech Republic</i>
[P2.77]	<b>Production of furfural from biomass wastes in fixed bed reactor</b> M. Saleem*, N. Baig, <i>University of the Punjab, Pakistan</i>
[P2.78]	<b>Antioxidant additives produced from biorefinery lignins by base catalysed depolymerization</b> J.M. Lavoie <sup>1</sup> , J. Damay <sup>1</sup> , E. Bahl <sup>1</sup> , T. Ghislain <sup>1</sup> , J. Arauzo <sup>2</sup> , A. Gonzalo <sup>2</sup> , J.L. Sanchez* <sup>2</sup> , <sup>1</sup> Université de Sherbrooke, Canada, <sup>2</sup> Universidad de Zaragoza, Spain
[P2.79]	<b>Pilot-scale pretreatment of four agroindustrial residues in a continuous extrusion-autohydrolysis reactor for bioethanol production at high solids loading</b> J.A. Perez-Pimienta <sup>1</sup> , G. Papa <sup>2</sup> , J.M. Gladden <sup>2-3</sup> , B.A. Simmons <sup>2</sup> , A. Sanchez* <sup>1</sup> , <sup>1</sup> CINVESTAV, Mexico, <sup>2</sup> Joint BioEnergy Institute, USA, <sup>3</sup> Sandia National Laboratories, USA
[P2.80]	<b>Biodiesel production from <i>Cascabela ovata</i> seed oil</b> E. Sánchez-Arreola* <sup>1</sup> , H. Bach <sup>2</sup> , L.R. Hernández <sup>1</sup> , <sup>1</sup> Universidad de las Américas Puebla, Mexico, <sup>2</sup> University of British Columbia, Canada
[P2.81]	<b>Production of polyunsaturated fatty acids from marine alga <i>Cryptocodinium cohnii</i>: bioreactor optimization and separation sequence design</b> A. Otero <sup>1</sup> , I. Fernandez <sup>1</sup> , E. Rosales <sup>1</sup> , M. Pazos <sup>1</sup> , J. Bouzada <sup>2</sup> , M.A. Sanroman* <sup>1</sup> , <sup>1</sup> University of Vigo, Spain, <sup>2</sup> Carbiotech, SL, Spain
[P2.82]	<b>Designing efficient separation platforms for the extraction of antioxidants from algal biomass</b> N. Pinheiro <sup>1,2</sup> , A. Rodriguez <sup>1</sup> , F.J. Deive <sup>1</sup> , M.A. Sanroman* <sup>1</sup> , <sup>1</sup> University of Vigo, Spain, <sup>2</sup> Universidade de Cabo Verde, Spain
[P2.83]	<b>A sequential process for biomachining copper pieces including oxidant regeneration</b> A. Santaolalla*, N. Rojo, G. Gallastegui, A. Barona, <i>University of the Basque Country, Spain</i>
[P2.84]	<b>Simultaneous saccharification and co-fermentation process using interconnected column reactors to produce ethanol from sugarcane bagasse using immobilized cells of <i>Scheffersomyces shehatae</i></b> J.R.F. Pereira, R. Terán Hilaes, V.P. Shibukawa, D.V. Kamoei, S.S. da Silva, J.C. Santos*, <i>University of São Paulo, Brazil</i>
[P2.85]	<b>Biosurfactants sustainable production from pretreated sugarcane bagasse in solid state fermentation</b> B.C. Carneiro, P.R.F. Marcelino, J.G. Barbosa, B.B. Santos, R. Teran-Hilaes, J.C. Santos*, S.S. da Silva, <i>University of Sao Paulo, Brazil</i>
[P2.86]	<b>algal biofuel from marine microalgal consortia grown using shrimp farm wastewater</b> G. Saranya*, T.V. Ramachandra, <i>Indian Institute of Science Bangalore, India</i>
[P2.87]	<b>Effect of sulfate on simultaneous denitrification and methanogenesis process</b> G. Satoyoshi*, T. Koderu, S. Akizuki, T. Toda, <i>Soka University, Japan</i>
[P2.88]	<b>Biosorption for selective separation of <sup>137</sup>Cs</b> S. Sayed*, A. Khan, H. Bagla, <i>Kishinchand Chellaram College, India</i>
[P2.89]	<b>Equilibrium &amp; kinetics of sorption for precious metal recovery</b> S. Shaikh*, A. Khan, H. Bagla, <i>Kishinchand Chellaram College, India</i>
[P2.90]	<b>Effect of pretreatment on cell wall composition and structure of different sorghum genotypes</b> J. Shereena*, K. Chandraraj, <i>Indian Institute of Technology Madras, India</i>
[P2.92]	<b>Hydrothermal liquefaction of low quality Bio-feedstocks in continuous plug flow reactor</b> D. Singh*, W. Ma, L. Scoles, G. Robertson, C. Jiang, <i>National Research Council of Canada, Canada</i>

[P2.93]	<b>Technical and environmental assessment of the growing hydroprocessed esters and fattyacids (HEFA) for a sustainable transport in Sweden</b> S. Soam*, K. Hillman, P. Norell, <i>University of Gävle, Sweden</i>
[P2.94]	<b>Influence of temperature profile on the quality of the bioproducts obtained from pinewood in a continuous pyrolysis screw reactor</b> J. Solar*, B.M. Caballero, A. Lopez-Urionabarrenechea, N. Gastelu, I. de Marco, <i>University of the Basque Country (UPV/EHU), Spain</i>
[P2.95]	<b>Green initiatives for fisher community and coastal ecosystems of Sri Lanka</b> R. Soysa*, A. Mallawatantri, D. Chandrasekara, R. Jirasingha, <i>International Union for Conservation of Nature, Sri Lanka</i>
[P2.96]	<b>Maize silage as source for organic acids and biogas - changing ensiling conditions to increase and alter organic acids concentrations, separation of silage and evaluation of methane yield potential</b> J. Steinbrenner*, H. Oechsner, <i>University of Hohenheim, Germany</i>
[P2.97]	<b>New opportunities to valorize the macroalgae "Gelidium Sesquipedale" biomass wastes from the Agar-Agar industry. Porous biomaterials for environmental sustainability</b> N. Ferrera-Lorenzo, B. Ruiz, I. Suárez-Ruiz*, E. Fuente, <i>Instituto Nacional del Carbón (INCAR), CSIC, Spain</i>
[P2.98]	<b>Refuse-derived fuel gasification in a pyrolysis/gasification unit with catalyst based on clay minerals</b> P. Šuhaj*, J. Haydary, J. Husár, P. Steltenpohl, I. Šupa, <i>Slovak University of Technology in Bratislava, Slovakia</i>
[P2.99]	<b>determination of biodegradation extent and recyclability of commercial grade plastic film products using analytical methods</b> S.M. Al-Salem, A. Al-Nasser, H.H. Sultan*, M. Al-Wadi, H.J. Karam, A.T. Al-Dhafeeri, M.H. Behbehani, M.Y. Al-Foudari, A.A. Al-Hazza'a, A.A. Al-Rowaih, <i>KISR, Kuwait</i>
[P2.100]	<b>Efficiency of biochar from Oil palm fronds and microbial consortium for sulfide removal</b> P. Sutarut*, J. Kanjanarong, P. Boonsawang, <i>Prince of Songkla University, Thailand</i>
[P2.101]	<b>Evaluation of semi-continuous anaerobic digestibility of steam exploded aquatic weed</b> H. Suzuki* <sup>1</sup> , S. Akizuki <sup>2</sup> , T. Koderai <sup>1</sup> , M. Fujiwara <sup>1</sup> , T. Toda <sup>1</sup> , <sup>1</sup> Graduate School of Soka University, Japan, <sup>2</sup> Soka University, Japan
[P2.102]	<b>Enhancing the co-digestion efficiency of sewage sludge and cheese whey using an additional co-substrate</b> A. Szaja*, A. Montusiewicz, <i>Lublin University of Technology, Poland</i>
[P2.103]	<b>Pullulan production from sugarcane bagasse hydrolysate as a new approach to development of biorefineries: Evaluation of fermentative parameters</b> R. Terán Hilaes*, J. Resende, A.C. Orsi, J.V. Ienny, T.M. Lacerda, S.S. da Silva, J.C. Santos, <i>University of Sao Paulo, Brazil</i>
[P2.104]	<b>Simultaneous hydrolysis and fermentation system using immobilized yeasts to produce ethanol from sugarcane bagasse pretreated by hydrodynamic cavitation-assisted process</b> R. Terán Hilaes* <sup>1</sup> , D.K. Viana <sup>1</sup> , M.A. Amhed <sup>2</sup> , J. Resende <sup>1</sup> , S.S. da Silva <sup>1</sup> , J.C. Santos <sup>1</sup> , <sup>1</sup> University of Sao Paulo, Brazil, <sup>2</sup> MNS University of Engineering and Technology, Brazil
[P2.105]	<b>Promotion effect of sodium soap in glycerol on delignification of wood powder</b> M. Todaka*, W. Kowhakul, H. Masamoto, M. Shigematsu, <i>Fukuoka University, Japan</i>
[P2.106]	<b>Gaseous fuels production from tequila vinasses under mesophilic and thermophilic conditions</b> A. Toledo-Cervantes* <sup>1</sup> , F. Villafán <sup>1</sup> , J. Arreola-Vargas <sup>2</sup> , H. Méndez-Acosta <sup>1</sup> , <sup>1</sup> Universidad de Guadalajara, Mexico, <sup>2</sup> Universidad Tecnológica de Jalisco, Mexico
[P2.107]	<b>An integrated anaerobic digestion waste-to-energy system for energy recovery from food waste</b> Y.W. Tong*, J.X. Zhang, K.C. Loh, <i>National University of Singapore, Singapore</i>
[P2.108]	<b>Potential of suberinic acids to produce moisture resistant wood-based particleboard</b> R. Tupciauskas*, M. Andzs, J. Grinins, J. Rizhikovs, A. Pazhe, P. Brazdausks, M. Puke, A. Plavniece, <i>Latvian State Institute of Wood Chemistry, Latvia</i>
[P2.109]	<b>Development of particleboard by using industrial lignins as binders</b> R. Tupciauskas* <sup>1</sup> , M. Andzs <sup>1</sup> , A. Veveris <sup>1</sup> , J. Gravitis <sup>1</sup> , T. Liitia <sup>2</sup> , T. Tamminen <sup>2</sup> , <sup>1</sup> Latvian State Institute of Wood Chemistry, Latvia, <sup>2</sup> VTT Technical Research Centre of Finland, Finland
[P2.110]	<b>Alkaline/enzymatic pretreatment of cocoa pod husks for propionic acid production</b> Z.S. Vásquez <sup>1</sup> , L.P.S. Vandenberghe* <sup>1</sup> , C. Rodrigues <sup>1</sup> , V.O.A. Tanobe <sup>1</sup> , H.G. Rogez <sup>2</sup> , A. Góes Neto <sup>3</sup> , <sup>1</sup> Federal University of Paraná - UFPR, Brazil, <sup>2</sup> Federal University of Paraíba - UFPB, Brazil, <sup>3</sup> Federal University of Minas Gerais - UFPR, Brazil
[P2.111]	<b>Simple autoflocculation of <i>Dunaliella salina</i> by pH modulation</b> P.C.S. Kirnev, J.C. de Carvalho, L.P.S. Vandenberghe*, C.R. Soccol, <i>Federal University of Paraná, Brazil</i>
[P2.112]	<b>Identification and characterization of <i>Exiguobacterium acetylicum</i> beta-galactosidase</b> C. Castillo <sup>2</sup> , C. Aburto <sup>1</sup> , R. Luraschi <sup>2</sup> , A. Illanes <sup>1</sup> , F. Arenas <sup>2</sup> , C. Guerrero <sup>1</sup> , C. Vera* <sup>2</sup> , <sup>1</sup> Pontificia universidad Católica de Valparaíso, Chile, <sup>2</sup> Universidad de Santiago de Chile, Chile
[P2.113]	<b>Bio-oil production by hydrothermal liquefaction of microalga <i>Nannochloropsis gaditana</i> with homogenous and heterogeneous catalysts</b> A. Sánchez-Bayo, R. Rodriguez, V. Morales, L.F. Bautista, G. Vicente*, <i>Rey Juan Carlos, Spain</i>
[P2.114]	<b>Chemical products characterization during the pyrolysis of different macroalgae species by Py-GC/MS analysis</b> M.A. Wahab* <sup>1</sup> , D.J. Nowakowski <sup>1</sup> , G. Griffiths <sup>1</sup> , <sup>1</sup> Aston University, UK, <sup>2</sup> University of Carthage, Tunisia
[P2.116]	<b>UV-cured epoxidized soybean oil based environment friendly coatings</b> H.Z. gao <sup>1</sup> , Z.H. xi* <sup>1</sup> , L.P. li <sup>2</sup> , L. zhao <sup>1</sup> , M.Y. zhang <sup>1</sup> , T.Y. wan <sup>1</sup> , R.L. liang <sup>1</sup> , H.Y. liu <sup>1</sup> , <sup>1</sup> East China University of Science and Technology, China, <sup>2</sup> Sinopec Dalian Institute, China
[P2.117]	<b>Ethanol production by <i>Clostridium autoethanogenum</i>: process and the parameters</b> H. Xu*, C. Liang, J. Xu, M. He, Z. Yuan, X. Chen, <i>Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences, China</i>
[P2.118]	<b>Hydrothermal liquefaction of sugarcane bagasse to bio-oil</b> X. Yan* <sup>1,2</sup> , J. Ma <sup>1,2</sup> , Y. Zhao <sup>1,2</sup> , J. Zhou <sup>1,2</sup> , <sup>1</sup> China University of Petroleum, China, <sup>2</sup> Key Laboratory of Petroleum Resource and Prospecting, China

[P2.119]	<p><b>Limonene production from acetate and ethanol to enhance carbon flow into the mevalonate pathway in recombinant <i>Saccharomyces cerevisiae</i></b>  J. Yang*<sup>1</sup>, S. Cho<sup>2</sup>, J-G. Na<sup>1</sup>, J. Lee<sup>1,2</sup>, <sup>1</sup>Sogang University, Republic of Korea, <sup>2</sup>C1 Gas Refinery R&amp;D Center, Republic of Korea</p>
[P2.120]	<p><b>Design and implementation of a pilot-scale anaerobic digestion system for biogas production from algae</b>  A. Yarberry*<sup>1</sup>, F. Witarsa<sup>2</sup>, P.I. May<sup>1</sup>, P. Kangas<sup>1</sup>, E. Darby<sup>3</sup>, S. Lansing<sup>1</sup>, <sup>1</sup>University of Maryland, USA, <sup>2</sup>Colorado Mesa University, USA, <sup>3</sup>Anchor QEA, USA</p>
[P2.121]	<p><b>Dynamic analysis of continuous-flow microwave-assisted biodiesel production with a screw propeller</b>  J. Ye*<sup>1,2</sup>, H. Zhu<sup>1</sup>, H. Tao<sup>3</sup>, K. Huang<sup>1</sup>, <sup>1</sup>Sichuan University, China, <sup>2</sup>McGill University, Canada, <sup>3</sup>China West Normal University, China</p>
[P2.122]	<p><b>Enhancing enzymatic hydrolysis of energy sorghum and pennisetum hybrids with hydrothermal pretreatment</b>  Q. Yu*, Q. Wang, W. Qi, X. Zhuang, Z. Wang, Z. Yuan, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences, China</p>
[P2.123]	<p><b>Fuel properties and grindability of torrefied wood pellets</b>  S. Yu*<sup>1</sup>, J. Park<sup>1</sup>, M. Kim<sup>1</sup>, C. Ryu<sup>1</sup>, Y. Lee<sup>2</sup>, W. Yang<sup>2</sup>, <sup>1</sup>Sungkyunkwan University, Republic of Korea, <sup>2</sup>Korea Institute of Industrial Technology, Republic of Korea</p>
[P2.124]	<p><b>Characterization of biochar and byproducts from slow pyrolysis of Hinoki cypress</b>  S. Yu*<sup>1</sup>, J. Park<sup>1</sup>, M. Kim<sup>1</sup>, C. Ryu<sup>1</sup>, J. Park<sup>2</sup>, <sup>1</sup>Sungkyunkwan university, Republic of Korea, <sup>2</sup>Korea Electric Power Corporation, Republic of Korea</p>
[P2.125]	<p><b>Enhanced hydrogen production from tobacco stem gasification by cyclic utilization of calcium-based CO<sub>2</sub> sorbent pellet</b>  Y. Zhang*, X. Gong, Y. Peng, E. Leng, W. Liu, M. Xu, Huazhong University of Science and Technology, China</p>
[P2.126]	<p><b>A Multi-walled carbon nanotube electrode based on porous graphite-RuO<sub>2</sub> in electrochemical filter for pyrrole degradation</b>  X.Z. Zhou*, S.Q. Liu, A.L. Xu, K.J. Wei, W.Q. Han, J.S. Li, S.Y. Sun, J.Y. Shen, X.D. Liu, L.J. Wang, Nanjing University of Science and Technology, China</p>
[P2.127]	<p><b>Nutrient removal and microbial community in the treatment of anaerobically digested dairy manure slurry by <i>Chlorella vulgaris</i></b>  S. Zhu*, S. Feng, Guangzhou Institute of Energy Conversion, China</p>
[P2.128]	<p><b>Thermocatalytic co-pyrolysis of Azadirachta indica seeds and waste nitrile gloves: A sustainable way to reduce plastic waste by converting into renewable fuels and chemicals</b>  R.K. Mishra*<sup>1</sup>, J.S. Iyer<sup>2</sup>, K. Mohanty<sup>1</sup>  <sup>1</sup>Indian Institute of Technology Guwahati, India, <sup>2</sup>Thadomal Shahani Engineering College, Mumbai University, India</p>