

357th OMICS International Conference

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Scientific Program

Proceedings of

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Biofuels & Bioenergy

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OMICS International Conferences

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Scientific Program

Day 1 August 25, 2015

9:00-9:30 Registrations

Hall - 4



9:30-10:00

Opening Ceremony

Keynote Forum

Introduction

10:00-10:25 David Serrano
IMDEA Energy Institute, Spain

10:25-10:50 Anthony Bridgwater
Aston University, UK

Group Photo & Coffee Break 10:50-11:05

11:05-11:30 Philip Pienkos
NREL, USA

Track4 : Biomass

Session Chair: Blake Simmons, Joint Bioenergy Institute, USA

Session Co-Chairs: Edward A. Bayer, Weizmann Institute, Israel

Session Introduction

11:30-11:50	Development of advanced biofuels and biomass conversion technologies at the Joint BioEnergy Institute Blake Simmons, Joint Bioenergy Institute, USA
11:50-12:10	Cellulosome-inspired multi-enzyme assemblies for conversion of cellulosic biomass into biofuels Edward A. Bayer, Weizmann Institute, Israel
12:10-12:30	Research strategies to generate economically viable biofuels from cellulosic biomass: Approaches and results from the BioEnergy Science Center (BESC) Paul Gilna, BioEnergy Science Center, USA
12:30-12:50	Catalytic pyrolysis of olive mill wastewater sludge to produce biofuels Kamel Halouani, University of Sfax, Tunisia
Lunch Break 12:50-13:35	
13:35-13:55	First and second generation fuels: How to assess their potential for sustainable transportation? Daniela Thrän, German Biomass Research Center, Germany
13:55-14:15	Improved saccharification efficiency of alfalfa for bioethanol production: From phenotypic characterization to marker-assisted selection Annick Bertrand, Soils and Crops Research and Development Centre, Canada
14:15-14:35	Use of near infrared spectroscopy for the rapid low-cost analysis of a wide variety of lignocellulosic feed stocks Daniel Hayes, Celignis Limited, Ireland
14:35-14:55	Optimization models in support of biomass co-firing decisions in coal fired power plants Sandra D Ekşioğlu, Clemson University, USA
14:55-15:15	Bio-Inspired heterogeneous catalyst for sustainable biofuel production Dhanapati Deka, Tezpur University, India

Coffee Break 15:15-15:30	
15:30- 15:50	Removal effect of alkali and alkaline earth metallic species and ash from biomass (palm empty fruit bunch) on pyrolytic characteristics to produce oil Yong-Chil Seo , Yonsei University, South Korea
15:50- 16:10	Workers' exposure to biological and chemical agents in biomass processing at CHP plants Juha Laitinen , Finnish Institute of Occupational Health, Finland
16:10- 16:30	Burning characteristics of carbonized chars from RDF, scrap tire, and their blends Hanzade Haykiri Acma , Istanbul Technical University, Turkey
16:30-16:40	From biomass to biofuels: Exploiting the cellulosome of <i>Clostridium clariflavum</i> for plant cell wall degradation Lior Artizi , Weizmann Institute, Israel
16:40-16:50	Efficiency of biomass energy use – Approach for the determination of the efficiency of diverse bioenergy projects Diana Pfeiffer , DBFZ Deutsches Biomasse for schungszentrum, Germany
Special Session: Food V/S Fuel	
16:50- 17:10	Moving beyond the food V/S fuel Debate Frank Rosillo-Calle , Imperial College, London
17:10-17:30	Sustainability perspectives on the energy-water-food nexus, A new technical or political paradigm? Rocio A Diaz-Chavez , Imperial College, London
17:30- 17:50	Bioethanol production: Corn vs lignocellulose biomass from olive oil industry and the potential role in ensuring food security Sebastián Sánchez , Jaén University, Spain
Closing ceremony	

Day 2 August 26, 2015	
Hall - 4	
Keynote Forum	
09:00- 09:25	Javier Brey Spanish Hydrogen Association, Spain
09:25-09:50	Thomas Foust NREL, USA
Session: Biofuels and Aviation Companies	
Session Introduction	
09:50-10:10	Catalytic upgrading of biomass pyrolysis vapors Mark Nimlos , NREL, USA
10:10-10:30	The bioliq-process for synthetic chemicals and fuels production Nicolaus Dahmen , Karlsruhe Institute of Technology, Germany
10:30-10:50	Bioenergy Produced from Plant Waste Siek-Ting Yong , Monash University, Malaysia
Coffee Break 10:50-11:05	
11:05-11:25	Production of biocrude oil by waste biomass catLiqprocess and characterization of oils Parvana Aksoy , TUBITAK MRC Energy Institute,Turkey
11:25-11:45	CatLiq- Catalytic hydrothermal liquefaction process from pilot scale to demo scale Mehmet Unsal , TUBITAK MRC Energy Institute,Turkey

Track3: Biodiesel & Track7: Bioalcohols**Session chair:** Adam Lee, Aston university, UK**Session co-chair:** Antonio Meirelles, University of Campinas, Brazil

11:45-12:05	Rational design of nanoengineered catalysts for biofuels production Adam Lee, Aston university, UK
12:05-12:25	Ethylic biodiesel: The bottlenecks for process optimization Antonio Meirelles, University of Campinas, Brazil
12:25-12:45	In-situ transformation of municipal sewage sludge into biodiesel Rebeca Sánchez Vázquez, Rey Juan Carlos University, Spain
12:45-13:05	Supply chain planning and design for biodiesel production via wastewater sludge Sandra D Ekşioğlu, Clemson University, USA
Lunch Break 13:05-13:50	
13:50-14:10	Heterogeneous acid and base catalysts for biodiesel production Jinesh C. Manayil, Aston University, UK
14:10-14:30	Ethanol fuel as portable power source in alkaline fuel cells Shingjiang Jessie Lue, Chang Gung University, Taiwan
14:30-14:50	Brazilian technology of fuel ethanol fermentation: New perspectives to improve the technology and diversification Pedro de Oliva Neto, São Paulo State University, Brazil
14:50-15:10	Evaluation of alkaline peroxide pretreatment of rice husk and its potential for Bioethanol production R. A. Pandey, CSIR-National Environmental Engineering Research Institute India.
15:10-15:20	Investigation of catalytic activity of thermally treated waste mussel shells for biodiesel production from jojoba oil Mangesh. R. Avhadad, Norwegian University of Life Sciences, Norway
Coffee Break 15:20-15:35	

Track2: Biogas**Session chair:** Luis Puchades Rufino, Ludan Renewable Energy, Spain**Session co-chair:** Serge R. Guiot, National Research Council Canada

15:35-15:55	Maralfalfa grass: Synergies with biogas plants and potential as bioenergy and biorefinery crop Luis Puchades Rufino, Ludan Renewable Energy, Spain
15:55-16:15	Screening of a wide range of pre-treatments for improving the algal biomass solubilization and biogas potential Serge R. Guiot, National Research Council, Canada
16:15-16:35	Sustainable small-scale biogas production from agro-food waste for energy self-sufficiency (BIOGAS3 project) Paz Gomez, AINIA Technology Centre, Spain
16:35-16:45	Title:Biochemical methane potential of <i>Ulva</i> spp. seaweed biorefinery residues Silvia Tedesco, Dublin City University, Ireland
16:45-16:55	Regenerative activated carbon for upgrading of bio-gas into bio-methane Muhammad Farooq, Heriot-Watt University, UK
16:55-17:05	Biogas, tool of energy saving for companies: to transform the expenditures in savings and profits Sofía González Hergueta., Instituto Tecnológico de la Energía, Spain
17:05-17:25	Comparision of scientific studies related to biomass conversion in Europe and Turkey Hasan Merdun, Akdeniz University, Turkey

10:50
onwards

Poster Presentations

Closing Ceremony

Day 3 August 27, 2015	
Hall 4	
Track1: Algae Fuels	
Session chair: Philip Pienkos, NREL, USA	
10:00-10:20	The Algae Testbed Public Private Partnership (ATP3): facilitating the commercialization of algal technologies Philip Pienkos, NREL, USA
10:20-10:40	Biofuels production from wastewater treatment plants Vincenzo Piemonte, Università Campus Bio-Medico, Italy
10:40-11:00	An outlook on microalgae production chains Dorinde Kleinegris, Wageningen UR - Food & Biobased Research, Netherlands
11:00-11:20	From wastewater to bioenergy: Nutrient and energy recovery with algae treatment Arbib, Zouhayr, FCC Aqualia, Spain
11:20-11:30	Effect of aeration flow rate on the growth of microalgae as a biofuel feedstock and wastewater treatment Harrison Onome Tighiri, Cyprus International University, Turkey
Coffee Break 11:30-11:45	
Session on Bio-oils Upgrading Into Advanced Biofuels & Track6: Biorefineries	
Session chair: David Serrano, IMDEA Energy Institute, Spain	
Session co-chair: Andrea Kruse, University Hohenheim, Germany	
11:45-12:05	Opening Speech David Serrano, IMDEA Energy Institute, Spain
Session Introduction	
12:05-12:25	Hydrothermal liquefaction and carbonization for fuels and materials Andrea Kruse, University Hohenheim, Germany
12:25-12:45	Optimization of bio-oil yields in fast biomass pyrolysis by demineralization of low quality biomass feedstocks Angelos Lappas, Centre for Research and Technology Hellas, Greece
12:45-13:05	Catalytic deoxygenation – Industrial applications and catalysts David Kubička, UniCRE-RENTECH, Czech Republic
Lunch Break 13:05-13:50	
13:50-14:10	In-situ upgrading of eucalyptus woodchips fast-pyrolysis bio-oil using metal oxide/h-ZSM-5 catalysts Patricia Pizarro, IMDEA Energy Institute, Spain
14:10-14:30	Hydrodeoxygenation of bio-oil model compounds over supported nickel Catalysts T.M. Sankaranarayanan, IMDEA Energy Institute, Spain
14:30-14:40	Catalytic cracking of stearic acid over Pd supported over nanocrystalline and hierarchical Marta Arroyo, Rey Juan Carlos University, Spain
14:40-14:50	Design of base catalysts for the catalytic deoxygenation of bio-oil by aldol condensation Tobias C. Keller, Institute for Chemical and Bioengineering, Switzerland
14:50-15:10	The development of a wheat straw based biorefinery for bioethanol fermentation Chenyu Du, University of Huddersfield, UK
15:10-15:20	The development of a bio refining strategy to convert municipal solid waste into bioethanol Jwan Abdullah, University of Nottingham, UK
Coffee Break 15:20-15:35	
15:35- 15:45	Itaconic acid production from sorghum bran-a biorefining approach Amina Ahmed, University of Nottingham, UK

15:45- 15:55	Biorefinery annexed to typical South African sugar mill, Part 1: Flowsheet development and simulation
	M. Ali Mandegari , University of Stellenbosch, South Africa
15:55-16:05	Biorefinery annexed to South African sugar mill, Part II; Energy sufficiency analysis
	Somayeh Farzad , University of Stellenbosch, South Africa
Closing Ceremony	

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