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1007th Conference

Scientific Program

5th World Bioenergy Congress and Expo

June 29-30, 2017 Madrid, Spain



Conference Series - America

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conference**series**.com 08:30-08:55

Opening Ceremony

Keynote Forum

08:55-09:00 Introduction

Title: Sustainable production of bioenergy and value-added products for the growing low-cost bioresource economy

09:00-09:25

Lew P. Christopher, Lakehead University, Canada

09:25-09:50

Title: Biocarbon, biomethane, and biofertilizer from corn residue: A circular economy concept

Animesh Dutta, Bio-renewable Innovation Lab, Canada

09:50-10:15

Title: Advanced molecular techniques to improve the activity and production of lignocellulases

Weilan Shao, Jiangsu University, China

10:15-10:40

Title: An overview of Biofuel production in India: Scope and future goal

Rintu Banerjee, IIT Kharagpur, India

Group Photo

Networking & Refreshments Break 10:40-11:00 @ Foyer

Sessions: Biogas | Bioenergy Applications

Session Chair: Animesh Dutta, Bio-renewable Innovation Lab, Canada

Session Co-chair: Jana Zabranska, University of Chemistry and Technology, Czech Republic

Session Introduction

11:00-11:20

Title: Bioconversion of carbon dioxide in biogas to methane

Jana Zabranska, University of Chemistry and Technology, Czech Republic

11:20-11:40

Title: Green economic development in the city of Johannesburg: production of biogas to fuel city buses

William H. L Stafford, Council for Scientific and Industrial Research (CSIR), South Africa

11:40-12:00

Title: Biogas desulfurization by autotrophic denitrification – temperature dependence

Dana Pokorna, University of Chemistry and Technology, Czech Republic

12:00-12:20

Title: Deployment of a bio-economic 'hub' in rural Thailand by means of a centralized biogas plant

Rikke Lybaek, University of Roskilde, Denmark

12:20-12:40

Title: Energy and economical evaluation of a biogas generation plant under the Feed-in Tariff scheme in Japan

Shiho Ishikawa, Hokkaido University, JAPAN

12:40-13:00

Title: Utilization of palm oil processing waste (palm oil mill effluent/POME) as a biogas raw material in Indonesia: Economic and institution approach

Endro Gunawan, Indonesian Center for Agricultural Socio Economic and Policy Studies, Indonesia

13:00-13:15

Title: Evaluation of mechanical comminution as substrate pretreatment in biogas production

Diana Andrade, Bavarian State Research Center for Agriculture, Germany

13:15-13:30

Title: Environmental impact and technical requirements of flexible energy supply from biogas-driven cogeneration units

Simon Juan Tappen, Bavarian State Research Center for Agriculture, Germany

Lunch Break 13:30-14:30 @ Zamora

14:30-14:45 **Title: A model-based analysis of future electricity production from biogas in Germany**
David Balussou, Karlsruhe Institute of Technology, Germany

Sessions: Renewable Energy | Bioenergy Transition | Processes for Bioenergy | Biodiesel

Session Chair: Patricia J Harvey, University of Greenwich, UK

Session Co-chair: David M. Babson, U.S. Department of Energy Bioenergy Technologies Office, USA

Session Introduction

14:45-15:05 **Title: Extracting value from non-potable water using halophilic algae: A water-food-energy nexus approach for delivering bioenergy**

Patricia J Harvey, University of Greenwich, UK

15:05-15:25 **Title: Enabling next generation Biofuels and Bioproducts for the emerging bioeconomy**

David M. Babson, U.S. Department of Energy, Bioenergy Technologies Office, USA

15:25-15:45 **Title: Traditional or modern Bioenergy: Which developing countries can mostly benefit?**

Luís Cortez, State University of Campinas - UNICAMP, Brazil

15:45-16:05 **Title: Business models for bioenergy villages-A compilation of main components of business models as part of the BIOVILL project**

Konstanze Stein, KEA Climate Protection and Energy Agency, Germany

Networking & Refreshments Break 16:05-16:25 @ Foyer

16:25-16:45 **Title: Is the Open Data maturity of the Spanish energy sector sufficiently high to enable the successful deployment of a circular economy strategy?**

Elena Perez-Minana, University of Surrey, Spain

16:45-17:05 **Title: Process analysis of hydrothermal liquefaction of Algae**

Souman Rudra, University of Agder, Norway

17:05-17:20 **Title: Ionic liquid based artificial cellulase type catalysts for cellulosic ethanol process**

Lucia Doyle, ttz Bremerhaven, Germany

17:20-17:35 **Title: Experimental and theoretical analysis of CO₂ adsorption process for optimization of carbon based (Biochar) adsorbent**

Hanieh Bamdad, Memorial University, Canada

17:35-17:45 **Title: Production of biodiesel by Jatropha Oil: A substitute fuel of diesel engine**

Arvind K Tiwari, NIET, India

17:45-17:55 **Title: A lean startup strategy to overcome the entrepreneurial challenges in Bioenergy sector: in context of National Mission for a 'Green India'**

P Pachauri, NIET, India

Panel Discussion

Day 2 June 30, 2017

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Keynote Forum

09:00-09:25 **Title: Converting waste products into fuel and useful chemicals**

Mohammed Farid, University of Auckland, New Zealand

09:25-09:50 **Title: Comparison of different options for converting food waste to biogas for energy uses using life cycle assessment**

Irene M C LO, The Hong Kong University of Science and Technology, Hong Kong

09:50-10:15 **Title: Development of portable ultra-small biomass gasification and power generation system**

Kunio Yoshikawa, Tokyo Institute of Technology, Japan

10:15-10:40 **Title: Boosting bioenergy by coordinating the activities of chloroplasts and mitochondria**
Boon Leong Lim, University of Hong Kong, China

Sessions: Biofuels | Bioethanol | Biomass Technology

Session Chair: Markus Brautsch, University of Birmingham, Germany

Session Co-chair: Raphael Lechner, Technical University Amberg-Weiden, Germany

Session Introduction

10:40-11:00 **Title: Duel fuel technology in Biomass CHP-Systems**
Markus Brautsch, University of Birmingham, Germany

Networking & Refreshments Break 11:00-11:20 @ Foyer

11:20-11:40 **Title: Hydraulic Injection Characteristics of different Biofuels**
Raphael Lechner, Technical University Amberg-Weiden, Germany

11:40-12:00 **Title: Market view for Bioethanol: A global perspective**
Alberto Carmona Bosch, Abengoa Bioenergy, Spain

12:00-12:15 **Title: Fatty acid methyl esters (FAMEs) obtained from rare seeds of Tunisia: *Ibicella lutea*, *Peganum harmala*, *Smyrnum olusatrum*, *Onopordum nervosum* and *Solanum elaeagnifolium***
David Bolonio, Universidad Politécnica de Madrid, Spain

12:15-12:30 **Title: A challenging attempt towards utilization of non-edible lignocellulosics for cost-effective biobutanol production**
Sanjeev Kumar, Indian Institute of Technology, India

Poster Presentations 12:30-13:30

Poster Judges

Mohammed Farid, University of Auckland, New Zealand

Kunio Yoshikawa, Tokyo Institute of Technology, Japan

BE-01 **Title: Performance of Nickel supported catalysts in steam reforming of toluene as a tar model compound for use in hot-syngas clean-up**
Abolghasem Shahbazi, NSF-CREST Center for Bioenergy, USA

BE-02 **Title: Modeling biomass behavior during combustion: A thermochemical approach to predict slagging. Effect of the S/CL molar ratio**
Ibai Funcia, National Renewable Energy Centre (CENER), Spain

BE-03 **Title: Microwaved-assisted deoxydehydration of glycerol to allyl alcohol**
Yanet Rodriguez Herrero, University of Alberta, Canada

BE-04 **Title: Hemicellulosic bioethanol production from Paulownia wood**
Elena Domínguez, University of Vigo, Spain

BE-05 **Title: Optimization of fast growing biomass fractionation processes**
Pablo G. del Río, University of Vigo, Spain

BE-06 **Title: Specific effect of explosive decompression during steam explosion pretreatment of wheat straw**
Charlotte Loustau Cazalet, IFP Energies Nouvelles, France

BE-07 **Title: Evaluation of a willow system for wastewater treatment and energy crop production in Norwegian climate**
Verónica Vela Vela, Polytechnic University of Valencia, Spain

BE-08 **Title: Effect of harvest age on bioethanol production from short rotation woody crops**
Ji Young Jung, Gyeongsang National University, South Korea

BE-09 **Title: Physical and chemical properties and growing media applications of pretreated wood chip**
Si Young Ha, Gyeongsang National University, South Korea

BE-10 **Title: Utilization of steam-exploded *Quercus mongolica* and micro-organism materials as components in soilless growth media for herbaceous and woody plants**
Jai Hyun Park, Gyeongsang National University, South Korea

- BE-11** Title: **Enzymatic biomass deconstruction: An attempt towards selective lignin degradation for improved reducing sugar release**
Rajiv Chandra Rajak, Indian Institute of Technology, India
- BE-12** Title: **Lipid accumulation in *Oleaginous Aspergillus sp.* utilizing Glycerol – A byproduct of biodiesel biorefinery**
G Lohit K Srinivas, Indian Institute of Technology, India
- BE-13** Title: **Improved biodiesel production from *Chlorella minutissima* and *Aspergillus awamori* through phyco-myco co-cultivation**
Archana Dash, Indian Institute of Technology, India
- BE-14** Title: **Bioethanol production through simultaneous saccharification and fermentation from citrus fruit waste**
Debajyoti Kundu, Indian Institute of Technology, India
- BE-15** Title: **Enhanced ethanol production from sugarcane tops via co-fermentation of pentoses and hexoses**
Knawang Chhunji Sherpa, Indian Institute of Technology, India
- BE-16** Title: **Simultaneous saccharification and fermentation of waste broken rice for bioethanol production**
Mohan Das, Indian Institute of Technology, India

Lunch Break 13:30-14:30 @ Zamora

Sessions: Biomass feed stocks for renewable energy generation | Biomass | Bioenergy Conversion

Session Chair: Richard Sayre, Los Alamos National Laboratory, USA

Session Co-chair: Ralph-Uwe Dietrich, German Aerospace Center (DLR e.V.), Germany

Session Introduction

- 14:30-14:50** Title: **Improving photosynthetic efficiency and biomass yield in plants and algae**
Richard Sayre, Los Alamos National Laboratory, USA
- 14:50-15:10** Title: **Alternative fuels from Biomass and Power (PbL) – A case study on process options, technical potentials, fuel costs and ecological performance**
Ralph-Uwe Dietrich, German Aerospace Center (DLR e.V.), Germany
- 15:10-15:30** Title: **Effects of variable feedstock particle size on Birchwood gasification: A CFD approach**
Souman Rudra, University of Agder, Norway
- 15:30-15:50** Title: **Theoretical elucidation of the molecular behaviour of levoglucosan during biomass pyrolysis**
Xiaolei Zhang, Queen's University Belfast, UK
- 15:50-16:10** Title: **Quality of organic amendment obtained from organic waste fraction in old landfill**
Khalid Fares, Cadi Ayyad University, Morocco

Networking & Refreshments Break 16:10-16:30 @ Foyer

- 16:30-16:50** Title: **Alkaline pretreatment and saccharification of woody biomass: Castor Stalk**
Santosh Sankh, Reliance Technology Group, India
- 16:50-17:05** Title: **Methane production through anaerobic digestion of various energy crops irrigated with wastewaters**
Sonia Shilpi, University of Newcastle, Australia
- 17:05-17:20** Title: **Prospects and barriers for the sustainable use of second generation biomass from the palm oil industry**
Bobbo Nfor Tansi, BTU Cottbus, Germany

Panel Discussion

Thanks giving & Closing Ceremony