

7th International Congress on

BIOFUELS AND BIOENERGY

October 02-04, 2017 Toronto, Canada



Conference Series LLC Ltd

47 Churchfield Road, London, UK, W3 6AY, Toll Free: +1-800-014-8923

08:00-08:30 Registrations

Dorothy

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08:30-09:00

Opening Ceremony

Keynote Forum

Introduction

- 09:00-09:30 **Title: Cellulosic biofuels: Realizing climate benefits and new processing paradigms**
Lee Lynd, Dartmouth College, USA
- 09:30-10:00 **Title: Bioenergy and energy sustainability**
Marc Rosen, University of Ontario Institute of Technology, Canada
- 10:00-10:30 **Title: Nanoporous celluloses, previously unknown forms, as the best primary feedstocks for energy, chemical and agricultural feed production**
Rajai H Atalla, Cellulose Sciences International, USA

Panel Discussions

Networking & Refreshment Break 10:30-10:45 @ Foyer

- 10:45-11:15 **Title: Engineering of plants for improved conversion into biofuels and bioproducts**
Henrik V Scheller, Lawrence Berkeley National Laboratory, USA
- 11:15-11:45 **Enhanced production of feedstock biomass: Biostimulants as a low-cost, low-carbon approach**
Donald L Smith, McGill University, Canada

Speical Session

- 11:45-12:45 **Title: Eucalyptus trees for bioenergy**
Donald L Rockwood, University of Florida, USA
- Title: Fast growing poplars for bioenergy**
Ronald S. Zalesny Jr, USDA Forest Service, USA
- Title: Shrub willow for bioenergy and ecosystem services**
Timothy A. Volk, SUNY ESF, USA

Group Photo @ Dorothy

Lunch Break 12:45-13:30 @ Foyer

Sessions: Biomass | Bioenergy

Session Chair: Prabir Basu, Dalhousie University, Canada

Session Co-chair: Charles M. Cai, UC Riverside, USA

Session Introduction

- 13:30-13:50 **Title: A comprehensive study on production of torrefied Biofuel using inclined rotary reactor**
Prabir Basu, Dalhousie University, Canada
- 13:50-14:10 **Title: Biomass deconstruction towards total carbon utilization for future biorefineries**
Charles M. Cai, UC Riverside, USA
- 14:10-14:30 **Title: Biomass combustion with CO₂ capture by chemical looping**
Alberto Abad, ICB-CSIC, Spain
- 14:30-14:50 **Title: Carbon debt of forest bioenergy - Fact or fantasy?**
Niclas Scott Bentsen, University of Copenhagen, Denmark
- 14:50-15:10 **Title: Modifying lignin content and composition to improve sorghum for bioenergy**
Scott Sattler, USDA-ARS, USA
- 15:10-15:30 **Title: Cold climate anaerobic digestion**
James Houser, Appalachian State University, USA
- 15:30-15:50 **Title: Genetic manipulation of the cell wall hemicellulose component as a route to improved feedstock materials for biofuels production**
Jacob K Jensen, Michigan State University, USA
- 15:50-16:10 **Title: Storage activity in the woody biomass supply chain: Mitigating GHG emissions and biomass degradation**
Selly krigstin, University of Toronto, Canada

Panel Discussions

Networking & Refreshment Break 16:10-16:20 @ Foyer

Sessions: Biomass | Bioenergy

Session Chair: Vosatka Miroslav, Institute of Botany Czech Academy of Sciences, Czech Republic

Session Co-chair: Niclas Scott Bentsen, University of Copenhagen, Denmark

- 16:20-16:40** Title: **Demonstrating operational stability and high returns on investment using additives in biomass burning power boilers**
Adam Campen, Imreys, USA
- 16:40-17:00** Title: **Steam Explosion for the extraction of sugars, pectic hydrocolloids, phenolics, flavonoids and oils from Citrus sinensis**
Christina Dorado, USDA-ARS, USA
- 17:00-17:20** Title: **Evaluation of rice husk for bio-hydrogen production**
Serpil Özmişçi, Dokuz Eylül University, Turkey
- 17:20-17:40** Title: **Ecological management of fast growing trees plantations and biorefinery of added value products from biomass**
Vosatka Miroslav, Institute of Botany Czech Academy of Sciences, Czech Republic
- 17:40-17:55** Title: **Water-Energy-Food Nexus: Biogas background and perspectives for Brazil and the United States by 2050**
Janaina Camile Pasqual, Pontifical Catholic University of Paraná, Brazil
- 17:55-18:10** Title: **Predictive statistical model for optimized biomass boiler operation**
Naz Orang, University of Toronto, Canada
- 18:10-18:25** Title: **Hydrogen chloride removal from wood waste-derived syngas using inorganic sorbents**
Augustina E. phram, Centre RAPSODEE, France
- 18:25-18:40** Title: **Calcium phosphates as a novel support material for catalysis in Fischer-Tropsch synthesis**
Rajesh munerathnam, Centre RAPSODEE, France
- 18:40-18:55** Title: **Comparing pretreatment and subsequent hydrolysis maximum total sugar yielding conditions organosolv pretreatment to CELF pretreated poplar**
Rachna Dhir, University of California Riverside, USA

Panel Discussions

Day 2 October 03, 2017

Dorothy

Keynote Forum

- 09:00-09:30** Title: **Biofuels and bio-chemicals: One perspective**
Ajit Sapre, Reliance Industries, India
- 09:30-10:00** Title: **Technical challenges of large-scale microalgae harvesting for feed, food, and biofuels production**
Majid Hosseini, The University of Texas Rio Grande Valley, USA
- 10:00-10:30** Title: **Innovative catalysts for the conversion of greenhouse gases (CO₂ and CH₄) from biowastes to energy and chemical**
Ange Nzihou, Centre RAPSODEE, France

Networking & Refreshment Break 10:30-10:40 @ Foyer

- 10:40-11:10** Title: **Recent progress in torrefaction for upgrading solid biomass fuels**
Wei-Hsin Chen, National Cheng Kung University, Taiwan

Speical Session

- 11:10-12:50** Malgorzata Slupska, POET, USA
Jason Bootsma, Flint Hills Resources, USA
Brooks Henningsen, Mascoma LLC, USA
Herman Pel, DSM, Netherlands
Sarah Teter, Novozymes, USA

Panel Discussions

13:30-13:55 Title: **Getting to Scale: Choosing the right financing tool, and the right location**
Jeff Passmore, Passmore Group Inc., Canada

Sessions: Advanced biofuels | Biorefineries | Bioethanol

Session Chair: Wolfgang Bauer, Michigan State University, USA

Session Co-chair: Kesen Ma, University of Waterloo, Canada

Session Introduction

13:55-14:15 Title: **Comparison of bio-ethanol and biogas: Net energy ratio, total yield, and greenhouse gas emissions**
Wolfgang Bauer, Michigan State University, USA

14:15-14:35 Title: **Biofuels between manifold expectations - How to assess their potential for sustainable transportation?**
Daniel thran, Helmholtz Centre for Environmental Research (UFZ), Germany

14:35-14:55 Title: **Direct ethanol fuel cell performance using polybenzimidazole/graphene oxide nanosheets electrolyte membrane**
Shingjiang Jessie Lue, Chang Gung University, Taiwan

14:55-15:15 Title: **Engineered carbon cycling strategies for advanced net-zero carbon Biofuels**
Lan Rowe, U.S. Department of Energy, USA

15:15-15:35 Title: **Making a bridge between biomass and hydrocarbon in a standard refinery**
Leandro Soter de Mariz e Miranda, UFRJ, Brazil

15:35-15:55 Title: **Effective microbial production of 2,3-butanediol from Biodiesel derived crude glycerol**
Wensheng qin, Lakehead University, Canada

Panel Discussions

Networking & Refreshment Break 15:55-16:05 @ Foyer

16:05-16:25 Title: **Thermostable pyruvate decarboxylases are key enzymes in the alcohol fermentation at high temperatures**
Kesen Ma, University of Waterloo, Canada

16:25-16:45 Title: **Bamboo: A fast-growing feedstock for a biorefinery**
Nuwan Sella Kapu, University of British Columbia, Canada

16:45-17:00 Title: **The potential black liquor has to improve the sustainability of kraft process if used as feedstock for kraft biorefinery**
Franklin Kalu, Heriot-Watt University, UK

17:00-17:15 Title: **India BioFuel industry- Challenges, Opportunities and business strategies**
Amanpreet Singh, Engineers India Limited, India

17:15-17:30 Title: **Microwave-assisted organic acid pretreatment of starch based agro-residue: Assessment of fermentable sugar and bioethanol production**
Funmilayo Faloye, University of KwaZulu-Natal, South Africa

17:30-17:45 Title: **Fossil fuel co-combustion of lignocellulosic sugarcane biorefineries: Techno-economic analysis (TEA) and life cycle assessment (LCA)**
M Ali Mandegari, University of Stellenbosch, South Africa

Poster Presentations (17:45-18:15)

BFBE-01 Title: **Development of resources and tools to improve oil content and quality in pennycress**
Fan Yang, The Ohio State University, USA

BFBE-02 Title: **Oxidative decomposition of lignin for materials of resin**
Isao Hasegawa, Kansai University, Japan

BFBE-03 Title: **High value chemicals from palm Biomass: Combustion kinetics of leaflet, rachis and fibers of UAE date palm tree biomass using thermogravimetric analysis**
Emmanuel Galiwango, UAE University, UAE

BFBE-04 Title: **Optimization of a meter-cubed (1m³) upscaled PBR (a focus on the light distribution of culture-agitation)**
Allen Akwu-Ude, University of Glasgow, UK

BFBE-05 Title: **Kinetics and thermodynamics of thermal inactivation of recombinant *E coli*-lignocellulases cel8C, cel12B, and peh28, on cellulose and pectin: Implications for lignocellulosic biomass conversion**
Eman Ibrahim, Texas A and M University-Kingsville, USA

Keynote Forum

- 09:00-09:30** **Title: Perspective of fermentative H₂ Production technology from biomass for commercialization**
Nanqi Ren, Harbin Institute of Technology, China
- 09:30-10:00** **Title: Bioenergy production through chemical looping processes**
Francisco García Labiano, ICB-CSIC, Spain
- 10:00-10:30** **Title: Renewable fuels and products from biomass: A hybrid thermochemical and biochemical conversion process**
Animesh Dutta, University of Guelph, Canada

Networking & Refreshment Break 10:30-10:40 @ Restaurant

- 10:40-11:10** **Title: Why is the thermophilic ethanol fermentation limited to low ethanol titers?**
Weilan shao, Jiangsu University, China

Workshop

- 11:10-11:35** **Title: Workshop on Synthesized natural gas production by dually fluidized bed gasification of woody biomass and subsequent methanation**
Koji Hashimoto, Tohoku Institute of Technology, Japan

Special talk

- 11:35-12:00** **Jim Grey, IGPC ethanol, Canada**

Sessions: Biodiesel | Biogas | Algae Biofuels

Session Chair: Koji Hashimoto, Tohoku Institute of Technology, Japan

Session Co-chair: Antonio Domingos Padula, UFRGS, Brazil

Session Introduction

- 12:00-12:20** **Title: A competitiveness analysis of alternative oilseeds for biodiesel production in Brazil**
Antonio Domingos Padula, UFRGS, Brazil
- 12:20-12:40** **Title: A systems approach to improve oil synthesis in alternative crops**
Ana Paula Alonso, The Ohio State University, USA
- 12:40-13:00** **Title: Intensified biofuel production**
Anh phan, Newcastle University, UK

Panel Discussions

Lunch Break 13:00-14:00 @ Foyer

- 14:00-14:20** **Title: Antiwear study on petroleum base oils with esters**
A. Rajendiran, Bharat Petroleum corporation Ltd, India
- 14:20-14:40** **Title: Biofuels production from microalgae extracts (green diesel and biokerosene)**
Luis F Barahona, CICY, Mexico
- 14:40-15:00** **Title: Feasibility of using brewery wastewater for biodiesel production and nutrient removal by scenedesmus dimorphus**
Giovanni Antonio Lutzu, Oklahoma State University, USA
- 15:00-15:20** **Title: Recycle of process streams for sustainable production of algae biofuels**
Ashwin Gajra, Reliance Industries Limited, India
- 15:20-15:40** **Title: Microbial based biofuel production: potential impact on the control of global warming**
Javid Hussain, Institute of Chemical Sciences University of Peshawar, Pakistan
- 15:40-16:00** **Title: Production of Microalgae Biomass (MAB): A cost-efficient, profitable, sustainable and quality upscaling of five commercial microalgae strains in greenhouse at northern latitudes**
Henry T Bedoya, University of Life Sciences, Norway
- 16:00-16:20** **Title: Effect of trace metals addition on food waste anaerobic digestion**
Andisheh Yazdanpanaha, University of Western Ontario, Canada

Panel Discussions

Networking & Refreshment Break 16:20-16:40 @ Foyer

Award Ceremony