

Program

BIOENERGY-II: FUELS AND CHEMICALS FROM RENEWABLE RESOURCES

March 8 - 13, 2009

Intercontinental Hotel Rio
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SUNDAY, MARCH 8, 2009

16:00 – 18:00 Registration

18:00 – 19:00 Reception

19:00 – 20:30 Dinner

NOTES –THIS NEEDS TO BE REVISED PER THIS EVENT INFO

- Technical sessions will be held in Quartzo A and B
- Lunches will be in the Monseigneur
- Dinners will be in the Monseigneur
- Posters will be in the Topazio & Turmalina. Posters should be hung the morning of your assigned day of presentation and should be removed after your assigned session in order to make room for the next days presentations.
- Breakfasts will be in the A Varanda Restaurant
- Audiotaping, videotaping and photography of presentations are strictly prohibited.
- *Speakers – Please leave at least 5 minutes for questions and discussion.*
- *Please do not smoke at any conference functions.*
- *Turn your cellular telephones to vibrate or off during technical sessions.*
- Be sure to make any corrections to your name/contact information on the Master Participant List or confirm that the listing is correct. A corrected copy will be sent to all participants after the conference.

MONDAY, MARCH 9, 2009

- 08:00 – 09:00 Breakfast
- 09:00 – 10:00 **TBA**
- 10:00 – 10:15 **Kim Olofsson**, Lund University, Sweden
Designing an SSCF process for bioethanol production from lignocellulosic substrates by co-fermentation of xylose and glucose
- 10:15 – 10:30 **Michael A. Cotta**, NCAUR-ARS-USDA, USA
Conversion of lower lignin mutants of sorghum bicolor (L) to ethanol
- 10:30 – 11:00 Coffee Break
- 11:00 – 11:15 **Mose Rossi**, Institute of Protein Biochemistry-C.N.R, Italy
Thermophilic enzymes for biomass conversion
- 11:15 – 11:30 **Daewon Pak**, Seoul National University of Technology, Korea
- 11:30 – 11:45 **Aiduan Li**, University College London, United Kingdom
Bioethanol from municipal solid waste: the role of biomass properties and structures during the ethanol conversion process
- 12:00 – 13:30 Lunch
- 13:30 – 17:30 FREE TIME
- 17:30 - 17:45 **Vijay Singh**, University of Illinois at Urbana-Champaign, USA
Increasing corn throughput dry grind process for ethanol production
- 17:45 – 18:00 **Anthony J. Clarke**, University of Guelph, Canada
Real-time observation of cellulose biodegradation by atomic force microscopy
- 18:00 – 18:15 **Geng Anli**, Ngee Ann Polytechnic,
Comparison of laboratory and industrial *SACCHAROMYCES CEREVISIAE* for their inhibitor resistance and xylose utilization
- 18:15 – 18:30 **Meik Wusterhausen**, Geesthacht GmbH Institute of Polymer Research, Germany
High performance vapor permeation with organic membranes for dewatering ethanol and other organic solvents
- 18:30 – 18:45 Break
- 18:45 – 19:00 **Byoung-In Sang**, Korea Institute of Science and Technology, Korea
Membrane-extractive butanol production by immobilized clostridium BEIJERINCKII NCIMB 8052
- 19:00 – 19:15 **Fabio Napoli**, University of Studies of Napoli Federico II, Italy
Assessment of kinetics for butanol production by clostridium acetobutylicum
- 19:15 – 19:30 **Bo Liao**, University of Saskatchewan, Canada
Use of genetically modified saccharomyces cerevisiae to convert soluble starch directly to ethanol
- 19:30- 21:00 Dinner
- 21:00- 23:00 Poster Session with Social Hour

TUESDAY, MARCH 10, 2009

- 07:30 – 08:30 Breakfast
- 08:30 – 09:30 **Eduardo Cavalcanti**, Instituto Nacional de Tecnologia, Brazil
Oxidation, Thermal and Storage Stability and Materials Compatibility Of Brazilian Soy Methyllic Biodiesel
- 09:30 – 09:45 **Shijie Liu**, Sunny ESF, USA
Conversion of woody biomass to energy, chemicals and materials
- 09:45 – 10:00 **Ho Nam Chang**, Korea Advanced Institute of Science & Technology, Korea
Biofuel production from biomass-derived volatile fatty acid platform
- 10:00 – 10:15 **Sylvio Ortega Filho**, PHB Industrial S/A, Brazil
Production of renewable biopolymers (PHB, PHB-HV) based in a biorefinery concept
- 10:15 – 10:45 Coffee Break
- 10:45 – 11:00 **Jan Piskorz**, Resource Transforms International, Canada
Hydrous thermolysis of biomass production of Hodge' Carbonlys and Oligomeric Lignin
- 11:00 – 11:15 **Mohamed Hamed**, Washington University in St. Louis, USA
Mixing characteristics of bubble columns with internals for biomass to liquid synthesis
- 11:15 – 11:30 **Balaji Balagurunathan**, Institute of Chemical and Engineering Sciences, Singapore, Singapore
In silico analysis for the production of higher carbon alcoholis using saccharomyces cerevisiae
- 11:30 – 11:45 **Clay M. Horiuchi**, University of Colorado at Boulder, USA
Investigating catalyst design strategies for selective reaction of Cyclic C₄ oxygenates from biomass through use of spectroscopic techniques
- 11:45 – 12:00 **Gianluca Marcotullio**, Delft University of Technology, The Netherlands
Selective production of furfural from C5 sugars contained in biomass, reaction kinetic assessment
- 12:00 – 12:15 **Juray De Wilde**, Universite catholique de Louvain, Belgium
A novel tao-glyverol based extraction- re-extraction process for the separation of chemicals produced by acidogenic fermentation of biomass
- 12:30 - 14:00 Lunch
- 14:00- 19:00 Free Time
- 19:00- 20:30 Dinner
- 20:30 – 22:00 Poster Session and Social Hour

WEDNESDAY, MARCH 11, 2009

- 07:30 – 08:30 Breakfast
- 08:30 – 9:30 **Fernando Preto**, Natural Resources Canada, Canada
Supply and properties of agricultural residues suitable for bioenergy application
- 09:30- 09:45 **Dietrich Meier**, vTI-Institute of Wood Technology and Wood Biology, Germany
Comparative fast pyrolysis of agricultural residues for use in biorefineries
- 09:45 – 10:00 **Piotr Oleskowicz-Popiel**, Technical University of Denmark, Denmark
A simulation model of combined biogas, bioethanol and protein fodder coproduction in organic farming
- 10:00 – 10:15 **Ahmed Youssef**, Washington University in St. Louis, USA
Novel design of multiphase reactors for biomass-to-liquid synthesis
- 10:15 – 10:45 Coffee Break
- 10:45 – 11:00 **Ran Xu**, The University of Western Ontario, Canada
Pyrolysis of agricultural wastes into bio-oil in a bubbling fluid bed pilot plant
- 11:00 – 11:15 **B. Vreugdenhil**, Energy research Centre of the Netherlands (ECN), The Netherlands
Scale-up of the milena gasification process for the production of bio-sng
- 11:15 – 11:30 **Muthanna Al-Dahhan**, Washington University in St. Louis, USA
Advanced measurement and computational techniques for optimizing the design and scale-up strategy for biogas production via anaerobic digestion
- 11:30 – 11:45 **Li Chen**, Commissariat à l'Energie Atomique (CEA), France
FAST PYROLYSIS UNDER GASIFICATION CONDITIONS: INFLUENCE OF PARTICLE SIZE, REACTOR TEMPERATURE AND GAS PHASE REACTIONS
- 11:45 – 12:00 **E. Simeone**, Delft University of Technology, The Netherlands
Study of the behavior of a catalytic ceramic candle filter in a lab-scale unit at high temperatures
- 12:00 – 13:30 Lunch
- 13:30 – 17:00 Free Time
- 17:00 – 17:15 **Jesús Arauzo**, University of Zaragoza, Spain
Synthesis gas by catalytic steam reforming of bio-oil
- 17:15 – 17:30 **Mohammad Latifi**, Institute for Chemicals and Fuels from Alternative Resources (ICFAR), Canada
Effects of temperature and residence time on the thermal cracking of bio-oil for syngas production
- 17:30 – 17:45 **Avdhesh Kr. Sharma**, DCR University of science and Technology, India
Exergy analysis of thermochemical conversion of woody biomass in fixed bed gasifiers

WEDNESDAY, MARCH 11, 2009 CONTINUED

- 17:45 – 18:00 **Capucine Dupont**, Commissariat à l'Energie Atomique, France
Suitability of wood chips from forestry and different biomass feedstocks for use in a semi-industrial plant of BTL production by gasification
- 18:00 – 18:15 **Isabel Paula Marques**, Universidade do Minho, Paraguay
Anaerobic digestion of OMW: anaerobic filter vs. hybrid
- 18:15 – 18:30 **Fernando Preto**, Natural Resources Canada, Canada
Combustion of pyrolysis 'bio-oils' in a tunnel furnace
- 18:30 – 18:45 Break
- 18:45 – 19:00 **Christina J. Booker**, University of Western Ontario, Canada
Characterization of bio-oils from agricultural biomass as potential pesticides
- 19:00 – 19:15 **Martin Huard**, The University of Western Ontario, Canada
Development of a novel integrated gas-solid separator for pyrolysis reactors
- 19:15 – 19:30 **M. Hakký Almaa**, University of Kahramanmaras Sutcu Imam, Turkey
Solvolytic of wood by using bio-oil from wood
- 19:30 – 19:45 **Paul de Wild**, Energy research Centre of the Netherlands (ECN), The Netherlands
Biomass valorization by a hybrid thermochemical fractionation approach
- 19:45 – 20:00 **Denilson DA SILVA PEREZ**, Institut Technologique FCBA, France
The Impact of storage conditions on the forest biomass quality for biofuels production
- 20:00 – 21:30 Dinner
- 21:30 – 23:30 Poster Session with Social Hour

THURSDAY, MARCH 12, 2009

- 08:00 – 09:00 Breakfast
- 09:00 – 10:00 **Palligarnai T Vasudevan**, University of New Hampshire, USA
Biodiesel production – Current state of the art and challenges
- 10:00 – 10:15 **Jose Gerlado A. Pacheco**, Universidade Federal de Pernambuco – UFPE, Brazil
Production of ethylic biodiesel from hydrolysis and estherification of acidic fat residues
- 10:15 - 10:30 **Jesús Arauzo**, University of Zaragoza, Spain
Hydrogen from catalytic steam reforming of bio-oil in a bench scale fluidized bed
- 10:30 – 10:45 **Muthanna Al-Dahhan**, Washington University in St. Louis, USA
Microalgae culturing via advanced measurement and computation techniques for bioenergy production
- 10:45 – 11:15 Coffee Break
- 11:15 – 11:30 **Zahira Yaakob**, Universiti Kebangsaan Malaysia, Malaysia
Transtersterification of Jatropha Curcas oil radiated with the Gamm Ray
- 11:30 – 11:45 **Erin E. Powell**, University of Saskatchewan, Canada
A novel bioreactor design for culture of photosynthetic microorganisms and its use as a cathodic half cell
- 11:45 – 13:30 Lunch
- 13:30 – 17:00 Free Time
- 17:00 – 17:15 **Flora Ng**, University of Waterloo, Canada
Upgrading waster oil to biodiesel via catalytic distillation
- 17:15 – 17:30 **Jesús Arauzo**, University of Zaragoza, Spain
Hydrogen production by aqueous-phase reforming
- 17:30 – 17:45 **M.G. Devanesan**, Annamalai University, India
Optimization of biodiesel production in a packed red reactor using co-immobilized Canada Bugosa Lipase and rhizopus orvzae cells
- 17:45 – 18:00 **Nádia Regina Camargo Fernandes Machado**, Universidade Estadual de Maringá, Brazil
Temperature effect of hydrogen production from reactions between ethanol and steam in the presence of PD-RU/NB₂O₅-TIO₂ catalyst.
- 18:00 – 19:30 Poster Session with Cocktail
- 19:30 – 23:00 Banquet

FRIDAY, MARCH 13, 2009

07:00 – 08:00	Breakfast
08:00 – 9:00	WORKSHOP I: Bioethanol-Biobutanol
9:00 – 10:00	WORKSHOP II: Biodiesel
10:00 – 10:30	Coffee Break
10:30 – 11:30	WORKSHOP III: Thermochemical Conversion into Fuels and Chemicals
11:30 – 12:30	<i>Ad Hoc</i> Discussion – What is next? Closing of Conference
12:30 – 13:45	Lunch and Departure

Poster List

Monday, March 9, 2009

Bioethanol and Biobutanol

1. **Byoung-In Sang**, Korea Institute of Science and Technology, Seoul, South Korea
Toxicogenomic analysis of butanol- and ethanol-producing bacteria by lignocellulosic hydrolysates
2. **Maria E. Lienqueo**, University of Chile, Santiago, Chile
Evaluation of pretreatment with ionic liquids for enzymatic hydrolysis of lignocellulosic materials to Obtain bioethanol
3. **Oriana Salazar**, University of Chile, Santiago, Chile
Cold active cellulase for bioethanol production from lignocellulosics under a simultaneous saccharification and fermentation (ssf) process
4. **Mosè Rossi**, Institute of Protein Biochemistry - C.N.R. Naples, Italy
Isothermic reactor for low temperature conversion of biomass
5. **Ahmed Youssef**, Washington University in St. Louis, USA
Enhancing water removal from whole stillage by enzyme addition
6. R. Carmona, M. E. Lienqueo, O. Salazar, A. García, University of Chile
Biological pretreatment with fungi as a tool for improvement of the enzymatic saccharification of Eucalyptus globulus Labill to obtain bioethanol

Tuesday, March 10, 2009

Chemicals from Biomass and Biorefinery Integration

1. **Ion Agirre** Alameda Urquijo, Bilbao, Spain
The development of a reactive distillation process for the production of 1,1 diethoxy butane from bioalcohol: kinetic study and simulation model

Wednesday, March 11, 2009

Biomass Thermal Conversion, Biochar, Biooils, Biogas, and Syngas Conversion

1. **Lorenzo Ferrante**, ICFAR- The University of Western Ontario, Ontario, Canada
Fast pyrolysis of forestry residue in a commercial-scale mobile pyrolyzer
2. **Salina Mat Radzi**, Universiti Sains Islam Malaysia, Malaysia
Study on response surface methodology (rsm) of lipase-catalyzed syntheses of oleyl palmitate
3. **Avdhesh Kr. Sharma**, DCR University of science and Technology, Haryana, India
Exergy analysis of thermochemical conversion of woody biomass in fixed bed gasifiers

Poster List

Thursday, March 12, 2009

Biodiesel, Biohydrogen and Microbial Fuel Cells

1. **Alberto F. Aguilera-Alvarado.**, The University of Guanajuato Chemistry School, Mexico
Saponification fraction minimization in the biodiesel production process
2. **Alberto Gonzalo Callejo**, University of Zaragoza, Spain
Comparison of predictive models for the esterification reaction in biodiesel production.
Application in a production plant simulation.
3. **F.H. Kasim**, Newcastle University, UK
Determination of the optimum conditions for direct in situ transesterification of jatropha curcas seeds
4. **Irmawati Ramli**, Universiti Putra Malaysia, Malaysia
Palm oil conversion to biodiesel over methanol-intercalated molybdenum oxide catalyst
5. **José Geraldo Pacheco Filho**, Universidade Federal de Pernambuco – UFPE, Brasil
Characterization of biodiesel from jatropha curcas I. Produced by a combination of esterification followed by alcoholysis
6. **José Geraldo Pacheco Filho**, Universidade Federal de Pernambuco – UFPE, Brasil
Biodiesel production from oiticica oil
7. **Maria Kosseva**, University College Dublin, Ireland
Design and characterisation of liposomes from thermophilic cultures
8. **M. S. Krishnamoorthy**, W.R. Grace & Co, USA
Heterogeneous catalysts for biodiesel production via esterification / transesterification