

CONFERENCE PROGRAMME
MONDAY, 12 JUNE 2017

MONDAY

09:00	Conference Opening				EXHIBITION
10:00	Plenary Session Keynotes on Applications of Science in Industry				
11:25	Opening Addresses Moderated Panel				
12:30	Linneborn Award EUBIA Award				
12:30	Lunch Break				
13:30	1AO.1 T1.1	2AO.2 T2.2	3AO.3 T3.2	4AV.1 T4.1/4.4/ 4.5	
15:00	Break				
15:15	1AO.4 T1.6	2AO.5 T2.2	3AO.6 T3.2	4AV.2 T4.2/4.3	
16:45	Break				
17:00	1AO.7 T1.2	2AO.8 T2.3	3AO.9 T3.6	3AV.3 T3.2	
18:30	Welcome Reception				

1 Biomass Resources T1.1 Biomass potentials and biomass mobilisation T1.6 Integrated biomass production for energy purposes
2 Biomass Conversion Technologies for Heating, Cooling and Electricity T2.2 Biomass and bioliquids combustion for small and medium scale applications T2.3 Biomass combustion in large utilities
3 Biomass Conversion Technologies for fuels, chemicals and materials T3.2 Pyrolysis and other biomass liquefaction technologies T3.6 Biorefineries
4 Biomass Policies, Markets and Sustainability T4.1 Market implementation, investments & financing T4.2 Sustainability, certification and standards T4.3 Environmental impacts of bioenergy T4.4 Resource efficient bioeconomy and social opportunities T4.5 Biomass strategies and policies

MONDAY CONFERENCE OPENING

09:00

PLENARY SESSION

Application of Science in Industry

Chaired by:

Nicolae SCARLAT

Technical Programme Chairman

European Commission, Joint Research Centre, Directorate for Energy, Transport and Climate

Remigijus LAPINSKAS

World Bioenergy Association, President

Speakers:

Anneli WALDÉN, Stockholms läns landsting, Strategist Energy and Environment, SWEDEN

Mika AHO, St1 Nordic Oy, Director, Public Affairs, FINLAND

Marko JANHUNEN, UPM Biorefining Vice President, FINLAND

Oskar MEIJERINK, Business Development Manager SkyNRG, THE NETHERLANDS

10:00

OPENING ADDRESSES / POLITICAL OPENING

11:00

MODERATED OPENING PANEL

12:00

LINNEBORN PRIZE 2017

EUBIA AWARD 2017

12:30

PRESS CONFERENCE

13:30 - 15:00

ORAL SESSION 1AO.1

Biomass Potentials and Biomass Mobilisation

ROOM: K21

CHAIRPERSONS:

Benoit GABRIELLE, AgroParisTech - INRA, FRANCE

Qingsheng CAI, Nanjing Agricultural University, P.R. CHINA

1AO.1.1

INTRESS - LAND AS A RESOURCE

Alexa LUTZENBERGER, ALRENE, GERMANY

Co-author: F. Lichter, ALRENE, Eisenhüttenstadt, Germany

1AO.1.2

BIOGAS TRANSPORT GRIDS, CASE STUDY "PROVINCE OF WEST-FLANDERS"

Evert Jan HENGEVELD, Hanze University of Applied Sciences, Hanze Research Centre Energy, THE NETHERLANDS

Co-authors: J. Bekkering, W.J.T. Gemert, van, Hanze Research Centre Energy, Hanze UAS, Groningen, The Netherlands; M. Dael, van, Centre for Environmental Sciences, Hasselt University and VITO, Hasselt and Mol, Belgium; A.A. Broekhuis, University of Groningen, The Netherlands

1AO.1.3

ANTICIPATING CLIMATE CHANGE EFFECT ON BIOMASS PRODUCTIVITY AND VEGETATION STRUCTURE OF MEDITERRANEAN FORESTS TO PROMOTE THE SUSTAINABILITY OF THE WOOD ENERGY SUPPLY CHAIN

Emmanuel GARBOLINO, Mines Paris-tech, CRC - Centre de Recherche sur les Risques et les Crises, FRANCE

Co-authors: W. Daniel, AgroParisTech and MINES ParisTech/PSL Research University, Paris, France; V. Sanseverino-Godfrin, MINES ParisTech/PSL Research University, Sophia Antipolis, France

1AO.1.4

EVALUATION OF THE PRESENT STATE AND PERSPECTIVES FOR THE ENERGY AND ENERGY CARRIERS PRODUCTION FROM BIOMASS IN POLAND

Krystian BUTLEWSKI, Institute of Technology and Life Sciences, Biomass Processing Technologies Dpt., POLAND

1AO.1.5

DOMESTIC BIOMASS RESOURCES AND POTENTIAL BIOMASS DEMAND FOR CO-FIRING IN THE EU

Olivia CINTAS SANCHEZ, Chalmers University of Technology, Energy and Environment Dpt., SWEDEN

Co-authors: G. Berndes, L. Cutz, O. Englund, F. Johnsson, Chalmers University of Technology, Göteborg, Sweden

13:30 - 15:00

ORAL SESSION 2AO.2

Biomass Combustion and micro-CHP Technologies

ROOM: K2

CHAIRPERSONS:

Øyvind SKREIBERG, SINTEF Energy Research, NORWAY

Juan Esteban CARRASCO, CIEMAT, SPAIN

2AO.2.1

DEVELOPMENT OF A NEW MICRO CHP PELLET STOVE TECHNOLOGY

Ingwald OBERNBERGER, Bios Bioenergiesysteme, AUSTRIA

Co-authors: G. Weiss, BIOS Bioenergiesysteme, Graz, Austria; M. Koessl, RIKKA Innovative Ofentechnik GmbH, Micheldorf, Austria

2AO.2.2

MODIFIES AND EXPERIMENTAL TESTS AN A LIQUID FUEL MICRO GAS TURBINE FUELED WITH PYROLYSIS OILS AND ITS BLENDS

Marco BUFFI, CREAR/RE-CORD, DIEF - Industrial Energy Dept., University of Florence, ITALY

Co-authors: A. Cappelletti, F. Martelli, CREAR, University of Florence, Florence, Italy; A.M. Rizzo, D. Chiamonti, CREAR/RE-CORD, University of Florence, Florence, Italy

2AO.2.3

RENEWABLE RESIDENTIAL HEATING WITH FAST PYROLYSIS BIO-OIL: RESIDUE2HEAT

Roy HERMANNNS, OWI Oel-Waerme-Institut, GERMANY

Co-authors: T. Ruetten, OWI Oel-Waerme-MEKU Energie Systeme GmbH & Co. KG Institut GmbH, Aachen, Germany; B. van de Beld, Biomass Technology Group. me-Institut, Hengelo, The Netherlands; A. Oasmaa, VTT, Espoo, Finland; P. Massoli, Istituto Motori, Consiglio Nazionale delle Ricerche, Napoli, Italy; A. Frassoldati, PTM Politecnico di Milano, Milano, Italy; A. Toussaint, BTG BioLiquids, Hengelo, The Netherlands; H. Insam, University of Innsbruck, Institute of Microbiology, Innsbruck, Austria

2AO.2.4

MEASUREMENTS OF FULL-COMBUSTION-CYCLE EMISSIONS FROM PEAT AND WOOD IN A DOMESTIC STOVE

Cian QUINN, University College Dublin, Mechanical and Materials Engineering Dpt., IRELAND

Co-author: W.J. Smith, University College Dublin, Ireland

2AO.2.5

PERFORMANCE EVALUATION OF A MODERN WOOD STOVE WHEN USING CHARCOAL

Alexis SEVAULT, SINTEF Energy Research, Thermal Energy Dpt., NORWAY

Co-authors: R. Khalil, O. Skreiberg, F. Goile, L. Wang, M. Seljeskog, R. Kempegowda, SINTEF Energy Research, Trondheim, Norway; B.C. Enger, SINTEF Materials and Chemistry, Trondheim, Norway

13:30 - 15:00

ORAL SESSION 3AO.3

Pilot Plant Application for Biomass Liquefaction

ROOM: K1

CHAIRPERSONS:

Andreas APFELBACHER, Fraunhofer-Institut UMSICHT, GERMANY

Wolter PRINS, University of Ghent, BELGIUM

3AO.3.1

BIORECOVER: BIOMASS RESIDUE CONVERSION & VALORISATION FOR AN ECONOMIC REFINERY

Paul DE WILD, Energy Research Centre of the Netherlands, Biomass & Energy Efficiency Dpt., THE NETHERLANDS

3AO.3.2

DROP IN POTENTIAL OF UPGRADED FUELS PRODUCED AT PILOT SCALE VIA HYDROTHERMAL LIQUEFACTION OF DIFFERENT BIOMASS FEEDSTOCKS

Patrick BILLER, Aarhus University, DENMARK

Co-authors: J. Yu, R.B Madsen, J. Becker, B.B. Iversen, I. Johannsen, M. Glasius, Aarhus University, Denmark

3AO.3.3

ONLINE BALANCING OF A PILOT SCALE FAST PYROLYSIS PLANT

Nicole WEIH, Karlsruhe Institute of Technology, Institute of Catalysis Research and Technology, GERMANY

Co-authors: A. Funke, C. Pfitzer, A. Niebel, N. Dahmen, Karlsruhe Institute of Technology, Germany

3AO.3.4

PYROLYSIS OF RESIDUAL BIOMASS IN A THERMO-CATALYTIC REFORMING PLANT AN EXPERIMENTAL INVESTIGATION OF SEWAGE SLUDGE

Johannes NEUMANN, Fraunhofer-Institut UMSICHT, Renewable Energy Dpt., GERMANY

Co-authors: A. Hornung, A. Apfelbacher, R. Daschner, Fraunhofer UMSICHT, Sulzbach-Rosenberg, Germany

3AO.3.5

EXPERIENCES OF PILOT SCALE CYCLONE PYROLYSIS

Ann-Christine JOHANSSON, RISE Bioeconomy, SP ETC, SWEDEN

Co-authors: L. Sandström, H. Wiinikka, O. Öhrman, SP Energy Technology Center, Piteå, Sweden

13:30 - 15:00

VISUAL PRESENTATIONS 4AV.1

From Research to Implementation in International Context and from Regions to Global Views

ROOM: Poster Area

CHAIRPERSONS:

Birger KERCKOW, FNR - Agency for Renewable Resources, GERMANY

Calliope PANOUTSOU, Imperial College, UNITED KINGDOM

4AV.1.1

BUILDING UP LOCAL BIOENERGY VALUE CHAINS BASED ON FRUIT TREE RESIDUES FROM PRUNING AND UPROOTING OPERATIONS: THE BOOSTING ROLE OF REGIONAL STAKEHOLDER NETWORKS

Massimo MONTELEONE, University of Foggia, STAR Research Unit - Agriculture Dpt., ITALY

4AV.1.2

PYROLYSIS AND THE PRICE OF CARBON - THE VALUE OF BIOCHAR

Niclas ERICSSON, Swedish University of Agricultural Sciences, Energy and Technology Dpt., SWEDEN

Co-author: S. Ahlgren, Swedish University of Agricultural Sciences, Uppsala, Sweden

4AV.1.4

A GENERALISED MODEL FOR THE CALCULATION OF CAPITAL AND ELECTRICITY PRODUCTION COSTS WITH SPECIAL EMPHASIS ON CO-DIGESTION BIOGAS CHAINS IN SPAIN

Hans LANGEVELD, Biomass Research, THE NETHERLANDS

Co-authors: M.S. Breure, J.W.A. Langeveld, Biomass Research, Wageningen, The Netherlands; J. Pombo, Universidade da Coruña, Santiago de Compostela, Spain

4AV.1.6

THE LEAST DESIRABLE OPTION - CONSUMERS - ATTITUDES TOWARDS BIOMETHANE AS A RAW MATERIAL FOR GREEN PACKAGING SOLUTIONS

Carsten HERBES, Nuertingen-Geislingen University, ISR Dpt., GERMANY

Co-authors: C. Beuthner, I. Ramme, Nuertingen-Geislingen University, Nuertingen, Germany

4AV.1.7

PROSPECTS FOR RENEWABLE MARINE FUELS - THE POTENTIAL ROLE OF BIOFUELS

Julia HANSSON, IVL Swedish Environmental Research Institute, Climate & Sustainable Cities, SWEDEN

Co-authors: S. Brynolf, M. Grahn, Chalmers University of Technology, Göteborg, Sweden

4AV.1.8

TECHNO-ECONOMIC FEASIBILITY OF PENNISETUM X PURPUREUM (ELEPHANT GRASS) SUBSTITUTION FOR CHARCOAL IN HAITI USING MONTE CARLO SIMULATION IN NET PRESENT VALUE ANALYSIS

Erica BELMONT, University of Wyoming, Mechanical Engineering Dpt., USA

Co-authors: A. Balogun Mohammed, Department of Mechanical Engineering, University of Wyoming, Laramie, USA; S. Vijlee, Donald P. Shiley School of Engineering The University of Portland, Usa

4AV.1.9

BIOPLASTICS: A GOOD GHG MITIGATION STRATEGY - THE CASE OF BRAZIL

Tjerk LAP, University of Groningen, Institute for Energy & Environmental Sciences, THE NETHERLANDS

Co-authors: A. Koberle, L. Nogueira, A. Szklo, R. Schaeffer, Federal University of Rio de Janeiro, Brazil; F. van der Hilst, Utrecht University, The Netherlands; R. Benders, A. Faaij, University of Groningen, The Netherlands

4AV.1.11

RESOURCE MANAGER-FOOD: REDUCING AVOIDABLE FOOD LOSSES IN GASTRONOMY

Dominik LEVERENZ, University of Stuttgart, Institute for Sanitary Engineering, Water Quality and Solid Waste Management, GERMANY

Co-authors: P. Pils, G. Hafner, University of Stuttgart, Germany

4AV.1.12

AGROCYCLE - A BLUEPRINT AND EU POLICY-FORMING PROTOCOL FOR THE RECYCLING AND VALORISATION OF AGRI-FOOD WASTE

Giuliano GRASSI, Secretary General, European Biomass Industry Association, BELGIUM

Co-authors: S. Ward, G. Hanley, UCD School, Dublin, Ireland; C. Burns, NNFFC, York, United Kingdom

4AV.1.13

A FOSSIL FUEL INDEPENDENT SWEDISH TRANSPORT SECTOR 2030 - THE ROLE OF INDUSTRY AND DISTRICT HEATING SYSTEMS AS HOSTS FOR BIOFUEL PRODUCTION

Elisabeth WETTERLUND, Luleå University of Technology, Energy Engineering, Div. of Energy Science, Engineering Sciences and Mathematics Dpt., SWEDEN

Co-author: K. Pettersson, SP Technical Research Institute of Sweden, Göteborg, Sweden

4AV.1.15

ASSESSING THE SOCIAL, ECONOMIC AND ENVIRONMENTAL EFFECTS OF "INTEGRATED MANURE MANAGEMENT" AS LOW-CARBON TRANSITION PATHWAY IN THE LIVESTOCK SECTOR IN THE NETHERLANDS

Eise SPIJKER, Stichting Joint Implementation Network, Research Dpt., THE NETHERLANDS

Co-author: A. Anger-Kraavi, Cambridge Econometrics, Cambridge, United Kingdom

4AV.1.16

SOCIO-ECONOMIC ASSESSMENT INCLUDING FEEDSTOCK SUPPLY AND MARKETABILITY CONCEPT OF HTC/HTL-PRODUCTS

Kay SUWELACK, Fraunhofer INT, GERMANY

Co-authors: A. Kruse, Conversion Technology and Life Cycle Assessment of Renewable Resources, Institute of Agriculture, Stuttgart, Germany; N. Dahmen, Institute for Catalysis Research and Technology, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany

4AV.1.20

FOSTERING SUSTAINABLE FEEDSTOCK PRODUCTION FOR ADVANCED BIOFUELS ON UNDERUTILISED LAND IN EUROPE

Rita MERGNER, WIP, GERMANY

Co-authors: M. Colangeli, L. Traverso, M. Morese, Food and Agriculture Organization of the United Nations, Rome, ITALY

4AV.1.21

ASSESSING A BIOECONOMY NETWORK FROM AN INTEGRATED LIFE CYCLE PERSPECTIVE

Alberto BEZAMA, Helmholtz Centre for Environmental Research, Bioenergy Dpt., GERMANY
Co-authors: M. Budzinski, J. Hildebrandt, A. Siebert, D. Thrän, Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany

4AV.1.22

MONITORING MATERIAL FLOWS IN A BIOECONOMY REGION

Alberto BEZAMA, Helmholtz Centre for Environmental Research, Bioenergy Dpt., GERMANY
Co-authors: J. Hildebrandt, D. Thrän, Helmholtz Centre for Environmental Research - UFZ, Leipzig, Germany

4AV.1.24

AN APPRAISAL OF THE USE OF DOMESTICALLY GROWN FEEDSTOCK COMPARED WITH IMPORTED FEEDSTOCK OF BIOFUEL POWERED LOCOMOTIVES: A CASE STUDY OF INDIAN RAILWAYS

Charlotte STEAD, University of Leeds, UNITED KINGDOM
Co-authors: Z. Wadud, H. Li, C. Nash, University of Leeds, United Kingdom

4AV.1.28

IMPACT OF ALTERNATIVE FOREST BIOMASS DEMAND AND SUPPLY SCENARIOS ON THE REGIONAL ECONOMY IN FINLAND

Kalle KARTTUNEN, Lappeenranta University of Technology, School of Energy, FINLAND
Co-authors: A. Ahtikoski, Natural Resources Institute Finland, Oulu, Finland; H. Salminen, Natural Resources Institute Finland, Rovaniemi, Finland; J. Hynynen, Natural Resources Institute Finland, Vantaa, Finland; S. Kujala, H. Törmä, University of Helsinki, Seinäjoki, Finland; J. Kinnunen, Statistics and Research Åland, Mariehamn, Finland; T. Ranta, Lappeenranta University of Technology, Mikkeli, Finland

4AV.1.29

INTEGRATING MISCANTHUS INTO ARABLE SYSTEM TO SECURE SUSTAINABLE FEEDSTOCK SUPPLY FOR LIGNOCELLULOSIC SUCCINIC ACID PRODUCTION

Yuanzhi NI, Imperial College London, Center for Environmental Policy, UNITED KINGDOM
Co-authors: O. Mwabonje, K. Yeung, J. Woods, Imperial College, London, United Kingdom; G.M. Richter, A. Qi, Rothamsted Research, Harpenden, United Kingdom; M.K. Patel, University of Geneva, Switzerland

4AV.1.32

POSSIBILITIES OF CREATING FOSSIL FREE REGION - CASE SOUTH SAVO

Antti KARHUNEN, Lappeenranta University of Technology, LUT Energy, FINLAND
Co-authors: M. Laihanen, T. Ranta, Lappeenranta University of Technology, Finland

4AV.1.36

COMPARATIVE ANALYSES OF CURRENT BIOBASED ECONOMY POLICIES AND STRATEGIC INDIA-EU PARTNERSHIP

Neeta SHARMA, ENEA Research Centre, Biotechnology and Agro-industry Division, ITALY
Co-authors: D. Claps, ENEA Research Centre., Matera, Italy; P. Joshi, UCOST, DST, Govt. of India, Uttrakhand, India

4AV.1.38

REGIONAL ADDED VALUE OF REFINING FOREST BIOMASS FOR ENERGY PURPOSES IN FINLAND

Jarno FÖHR, Lappeenranta University of Technology, Laboratory of Bioenergy, FINLAND
Co-authors: K. Karttunen, R. KC, T. Ranta, Lappeenranta University of Technology, Mikkeli, Finland

4AV.1.42

EUBCE STUDENT AWARDEE PRESENTATION

HOW ARE THE EU MEMBER STATES CONTRIBUTING TO THE 27% TARGET FOR EU'S RENEWABLE ENERGY CONSUMPTION; THE ROLE OF WOODY BIOMASS.

Svetlana PROSKURINA, Lappeenranta University of Technology, Laboratory of Sustainable Energy Systems, FINLAND

Co-authors: R. Sikkema, European Commission - Joint Research Centre, Directorate Sustainable Resources, Bio-economy, Ispra, Italy; J. Heinimö, Mikkeli Development Miksei Ltd, Mikkeli, Finland; E. Vakkilainen, Lappeenranta University of Technology, Lappeenranta, Finland

4AV.1.43

BIOMASS HEAT SCENARIOS IN GERMANY

Katalin Nora SZARKA, DBFZ-German Biomass Research Centre, Bioenergy Systems Dpt., GERMANY

4AV.1.48

DEVELOPMENT OF FOREST CHIPS USE AND PRICE IN THE NORDIC COUNTRIES: A COMPARATIVE ANALYSIS

Tapio RANTA, Lappeenranta University of Technology, School of Energy Systems, FINLAND

Co-authors: O. Olsson, Stockholm Environment Institute, Sweden; W. Stelte, Danish Technological Institute, Taastrup, Denmark; E. Tromborg, Norwegian University of Life Sciences, Oslo, Norway

4AV.1.50

BIOMASS SUPPLY FOR ENERGY USE IN THE EUROPEAN UNION

Manjola BANJA, European Commission, JRC, Renewable and Energy Efficiency, ITALY

Co-authors: N. Scarlat, J.F Dallemand, DIR.C, C.2, European Commission, Joint Research Centre, Ispra, Italy; R. Sikkema, DIR.D, D.1, European Commission, Joint Research Centre, Ispra, Italy

4AV.1.51

OVERVIEW OF ADVANCED BIOFUELS TECHNOLOGIES: CURRENT STATUS AND CHALLENGES

Adrian O'CONNELL, European Commission, JRC, ITALY

Co-authors: S. Rocca, J. Giuntoli, European Commission, Joint Research Centre (JRC), Petten, The Netherlands; M. Padella, A. O'Connell, M. Kousoulidou, L. Marelli, European Commission, Joint Research Centre (JRC), Ispra, Italy

4AV.1.52

ESTABLISHING REGIONAL BIOENERGY CONCEPTS IN SOUTHEAST EUROPE TO SPEED-UP THE MARKET UPTAKE OF SUSTAINABLE BIOENERGY

Jens ADLER, GIZ- German Development Cooperation, Landesbüro Sachsen, GERMANY

Co-authors: D. Rutz, WIP, Munich, Germany; K. Stein, Klimaschutz- und Energieagentur Baden-Württemberg, Karlsruhe, Germany; M. Höher, Austrian Energy Agency, Vienna, Austria; M. Krizmanić, Regional Energy Agency of North-West, Zagreb, Croatia; N. Markovska, International Centre for Sustainable Development of Energy, Water and Environment Systems, Republic of Macedonia; D.-A. Cosnita, Green Energy Agency, Romania; N. Krajnc, Standing Conference of Towns and Municipalities, Republic of Serbia; M. Gluscevic, Slovenian Forestry Institute, Slovenia Republic

4AV.1.54

WELL TO WHEEL ENERGY ANALYSIS OF BIOMASS PELLETS MADE FROM AGRO WASTE TO GENERATE 'VILLAGE LEVEL ENTREPRENEURSHIP' IN INDIA

Miheer VAIDYA, Shree Ganesh Press-N-Coat, Non Conventional Energy Dpt., INDIA
Co-authors: R. Vaidya, Shree Ganesh Press-n-Coat Pvt. Ltd, Aurangabad, India; S. Vaidya, MIT College of Engineering, Aurangabad, India

4AV.1.55

VALUE REFLECTIVE DESIGN SPACE, AN APPROACH FOR INCORPORATING SUSTAINABILITY IN EARLY STAGES OF BIOREFINERY DESIGN

Mar PALMEROS PARADA, Delft University of Technology, Biotechnology Dpt., THE NETHERLANDS

Co-authors: L. Asveld, P. Ossewijer, J.A. Posada Duque, TU Delft, Delft, The Netherlands

4AV.1.56

ENVIRONMENTAL EDUCATION RELATED TO MUNICIPAL SOLID WASTE AT ABC REGION (BRAZIL)

H. V. MARCELO, Universidade Federal da Integração Latino-Americana, BRAZIL

Co-authors: J.T.C.L. Toneli, G. Martins, G.C. Antonio, UFABC, Santo André, Brazil

4AV.1.57

IP STRATEGIES IN THE GLOBAL BIO-BASED MARKETPLACE

Deborah STERLING, Sterne, Kessler, Goldstein & Fox, USA

Co-author: J. Frueauf, Sterne, Kessler, Goldstein & Fox, Washington D.C., USA

4AV.1.58

CO-GASIFICATION OF BLACK LIQUOR AND PYROLYSIS LIQUIDS FOR BIOFUEL PRODUCTION - EVALUATION OF ECONOMIC VIABILITY FROM A NATIONAL SYSTEMS PERSPECTIVE

Jonas ZETTERHOLM, Luleå University of Technology, Energy Science/Energy Engineering Dpt., SWEDEN

Co-authors: E. Wetterlund, J. Lundgren, Luleå University of Technology, Sweden; K Petterson, SP Technical Research Institute of Sweden, Gothenburg, Sweden

4AV.1.63

NEW AND EMERGING TRENDS IN FLOCCULANTS FROM CELLULOSIC BIOMASS IN A COLOMBIAN DISTRICT.

Oscar MEDINA, Universidad Pedagógica Y Tecnológica de Colombia, Chemistry Dpt., COLOMBIA

Co-authors: L.M. Moreno, Universidad Pedagógica Y Tecnológica de Colombia, Tunja, Colombia

4AV.1.65

JATROPHA CURCAS PRODUCTION COST ANALYSIS AND SUSTAINABILITY IN EGYPT

Eleni KOUKOUNA, Agricultural University of Athens, Crop Science Dpt., GREECE

Co-authors: G. Kosmadakis, E.S. Ragkousi, M.A. Stoupas, N. Robolakis, E.G. Papazoglou, Agricultural University of Athens, Greece

4AV.1.66

A ROADMAP FOR POPLAR AND WILLOW TO PROVIDE ENVIRONMENTAL SERVICES AND PRODUCE RENEWABLE FUELS IN THE UNITED STATES

Leslie BOBY, Southern Regional Extension Forestry, College of Agriculture and Environmental Sciences, USA

Co-authors: P. Townsend, N. Haider, Washington State University, Seattle, WA, USA; T. Miller, City of Springfield, Springfield, OR, USA; J. Heavey, T. Volk, Syracuse University, Syracuse, NY, USA

4AV.1.67

MARKET AND CARBON SEQUESTRATION IMPACTS OF WOOD-BASED BIOFUEL PRODUCTION

Ariel LISTO ARGUL, University of Maine, School of Economics Dpt., USA

Co-authors: A.A. Listo, A.J. Daigneault, University of Maine, Orono, Usa

13:30 - 17:00

PARALLEL EVENT

Bioenergy - from Research to Market Deployment in a European Context

15:00 - 15:15

BREAK

15:15 - 16:45

ORAL SESSION 1AO.4

Integrated Biomass Production for Energy Purposes

ROOM: K21

CHAIRPERSONS:

Göran BERNDES, Chalmers University of Technology, SWEDEN

Floor VAN DER HILST, Utrecht University, THE NETHERLANDS

1AO.4.1

A NUTRIENT REUSE APPROACH FOR IMPROVED BIOMASS YIELDS, WATER QUALITY AND ECONOMIC

Cristina NEGRI, Argonne National Laboratory, Energy Systems Dpt., USA

Co-authors: C. Zumpf, P. Campbell, J. Cacho, Argonne National Laboratory, USA; H. Ssegane, The Climate Corporation, St. Louis, USA; T. Volk, J. Heavey, State University of New York, New York, USA

1AO.4.2

LOCALLY PRODUCED BIOENERGY CAN REPLACE 5-13% OF DANISH ENERGY CONSUMPTION IN 2020 WITHOUT INTRODUCTION OF ILUC

Søren LARSEN, Danish Energy Association, DENMARK

Co-authors: N. Bentsen, C. Felby, University of Copenhagen, Frederiksberg C, Denmark; T. Dalgaard, U. Jorgensen, J. Olesen, Aarhus University, Tjele, Denmark

1AO.4.3

OPPORTUNITIES FOR A SUSTAINABLE AND DIVERSE PRODUCTION OF RENEWABLE RESOURCES CROPS

Michael GRIEB, Technology and Support Centre (TFZ), Renewable Resources Crops and Material Cycles, GERMANY

1AO.4.4

BIOMASS RESIDUES AS ELECTRICITY GENERATION SOURCE IN LOW HDI REGIONS OF BRAZIL

Alessandro SANCHES-PEREIRA, University of São Paulo, Institute of Energy and Environment, BRAZIL

Co-author: S. Teixeira Coelho, University of São Paulo, Brazil

1AO.4.5

GRASS BIOMASS AS BIOFUEL FEEDSTOCK-ENVIRONMENTAL AND ECONOMIC SUSTAINABILITY

Lovisa BJÖRNSSON, Lund University, Environmental and Energy Systems Studies Dpt., SWEDEN

Co-authors: M. Lantz, Lund University, Sweden; T. Prade, Swedish University of Agricultural Sciences, Alnarp, Sweden

15:15 - 16:45

ORAL SESSION 2AO.5

New Modelling Approaches and Emission Reduction

ROOM: K2

CHAIRPERSONS:

Timothée NOCQUET, Leroux & Lotz Technologies, FRANCE

Christoffer BOMAN, Umeå University, SWEDEN

2AO.5.1

DEVELOPMENT AND VALIDATION OF A COMBINED 1D-FUEL-BED- AND 3D-CFD-MODEL FOR THE SIMULATION OF MOVING GRATE BOILERS

Gabriel BARROSO, Lucerne University of Applied Sciences, Thermal Energy Systems and Process Engineering Dpt., SWITZERLAND

Co-authors: S. Roth, Lucerne University of Applied Sciences, Horw, Switzerland; T. Nussbaumer, Lucerne University of Applied Sciences, Horw and Verenum, Zurich, Switzerland

2AO.5.2

NEW CFD BASED MODEL FOR THE DESIGN AND OPTIMISATION OF POROUS BURNERS FOR BIOMASS COMBUSTION PLANTS

Gerold THEK, Bios Bioenergiesysteme, R&D Dpt., AUSTRIA

Co-authors: G. Knauss, F. Biedermann, L. Obernberger, BIOS Bioenergiesysteme, Graz, Austria

2AO.5.3

A THEORETICAL AND EXPERIMENTAL STUDY OF THE FORMATION OF AROMATIC HYDROCARBONS (BTX/PAH) AS SOOT PRECURSORS FROM BIOMASS PYROLYSIS PRODUCTS

Ali SHIEHNEJAD-HESAR, Bioenergy 2020+, AUSTRIA

Co-authors: H. Bahramian, A. Shiehnejadhesar, R. Mehrabian, P. Sommersacher, Bioenergy2020+, Graz, Austria; A. Anca-Couce, C. Hochenauer, R. Scharler, Institute of Thermal Engineering, Graz University of Technology, Austria

2AO.5.4

REDUCTION OF PARTICLE EMISSIONS FROM WOOD COMBUSTION EXHAUST GASES WITH HIGH PARTICLE NUMBER AND MASS CONCENTRATIONS

Andrei BOLOGA, Karlsruhe Institute of Technology, Institute for Technical Chemistry, GERMANY

Co-authors: M. Ecker, HDG Bavaria, Massing, Germany; H.-P. Rheinheimer, CCA Carola Clean Air, Eggenstein-Leopoldshafen, Germany; H.-R. Paur, Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany

2AO.5.5

EXPERIMENTAL STUDY ON THE BIOMASS-BIOMASS CO-COMBUSTION FOR REDUCING NOX IN A FLUIDIZED-BED COMBUSTOR: A COMPARISON BETWEEN THE CO-FIRING TECHNIQUES

Vladimir KUPRIANOV, Thammasat University, Sirindhorn International Institute of Technology, THAILAND

Co-author: P. Ninduangdee, Phetchaburi Rajabhat University, Thailand

15:15 - 16:45

ORAL SESSION 3AO.6

Direct Liquefaction of Biomass in Hot Compressed Water and Hydrogenation of Products

ROOM: K1

CHAIRPERSONS:

Frederik RONSSE, Ghent University, BELGIUM

Johannes NEUMANN, Fraunhofer-Institut UMSICHT, GERMANY

3AO.6.1

SLURRY HYDROCRACKING FOR UPGRADING OF LIGNOCELLULOSIC BIOMASS TO TRANSPORTATION FUELS IN EXISTING REFINERIES

Olov ÖHRMAN, SP Energy Technology Center, SWEDEN

Co-authors: F. Weiland, H. Hedman, M. Gullberg, SP Energy Technology Center, Piteå, Sweden; C. Hulteberg, SunCarbon, Tygelsjö, Sweden

3AO.6.2

HYDROTHERMAL LIQUEFACTION OF RAW AND COMPONENTS-EXTRACTED MICROALGAE WITH ASSIST OF PULSED ELECTRIC FIELD PRETREATMENT

Bingfeng GUO, Karlsruhe Institute of Technology, Institute for Catalysis Research and Technology, GERMANY

Co-authors: A. Silve, C. Gusbeth, W. Frey, U. Hornung, N. Dahmen, Karlsruhe Institute of Technology, Germany

3AO.6.3

H₂CAP - HYDROGEN ASSISTED CATALYTIC BIOMASS PYROLYSIS FOR GREEN FUELS

Martin HØJ, Technical University of Denmark, Chemical and Biochemical Engineering Dpt., DENMARK

Co-authors: M. Zingler Stummann, P. Arendt Jensen, A. Degn Jensen, DTU Chemical Engineering, Kgs. Lyngby, Denmark; J. Gabrielsen, Haldor Topsøe, Kgs. Lyngby, Denmark

3AO.6.4

HYDRODEOXYGENATION OF PRE-TREATED BLACK LIQUOR ON A BIMETALLIC CATALYST: EVALUATION OF CATALYST PERFORMANCE

Christin ANACKER, Leibniz Institute for Catalysis at the University of Rostock, GERMANY

Co-authors: C. Anacke, U. Armbruster, A. Martin, Leibniz Institute for Catalysis at the University of Rostock, Rostock, Germany

3AO.6.5

ALTERNATIVES TO ZEOLITES FOR CATALYTIC FAST PYROLYSIS OF BIOMASS: MOLYBDENUM CARBIDE AND PT/TIO₂

Joshua SCHAIDLE, National Renewable Energy Laboratory, National Bioenergy Center, USA

Co-authors: C. Mukarakate, M. Xu, M. Griffin, C. Nash, E. White, K. Lisa, M. Nimlos, D. Ruddy, National Renewable Energy Laboratory, Golden, USA

15:15 - 16:45

VISUAL PRESENTATIONS 4AV.2

Sustainability Assessment of Biomass Systems and Environmental Impacts of Bioenergy

ROOM: Poster Area

CHAIRPERSONS:

Rocio DIAZ-CHAVEZ, Imperial College London, UNITED KINGDOM

Patricia THORNLEY, SUPERGEN Bioenergy Hub, UNITED KINGDOM

4AV.2.1

SUSTAINABLE RAW MATERIAL SUPPLY FOR BIOMETHANE - CROSS-SECTORAL SUSTAINABILITY CRITERIA & INDICATORS DISCUSSION

Diego PIEDRA-GARCIA, FNR - Agency for Renewable Resources, European and International Cooperation Dpt., GERMANY

Co-authors: A. Kovacs, EBA - European Biogas Association, Brussels, Belgium; S. Majer, DBFZ - German Biomass Research Centre, Leipzig, Germany; S. Proietti, ISINNOVA - Institute of Studies for the Integration of Systems, Rome, Italy

4AV.2.8

LIFE CYCLE ASSESSMENT OF ENVIRONMENTAL IMPACT FOR CORNSTALK BRIQUETTE FUEL USED IN GASIFICATION AND COMBUSTION SYSTEM

Zhiwei WANG, Henan Academy of Sciences, Energy Research Institute Co., P.R. CHINA

4AV.2.2

CERTIFICATION OF BIOMETHANE AS TRANSPORT FUEL - IMPLEMENTATION OF GHG EMISSION SAVINGS FORM THE USE OF MANURE FOR BIOGAS PRODUCTION

Katja OEHMICHEN, DBFZ-German Biomass Research Centre, Bioenergy Systems Dpt., GERMANY

Co-authors: S. Majer, DBFZ-German Biomass Research Centre, Leipzig, Germany; D. Thrän, UFZ, Leipzig, Germany

4AV.2.9

LIFE CYCLE APPROACH FOR ENERGY AND ENVIRONMENTAL ANALYSIS OF BIOMASS AND COAL CO-FIRING IN DIFFERENT LARGE SCALE CO-GENERATION UNITS

Jaroslawn ZUWALA, Institute for Chemical Processing of Coal, POLAND

4AV.2.13

REAL SCALE BIOMASS BURNING OF MISCANTHUS GROWN ON CONTAMINATED SITE

Dorothee DEWAELE, Université du Littoral Côte d'Opale, CCM Dpt., FRANCE

Co-authors: F. Cazier, P. Genevray, CCM - ULCO, Dunkerque, France; E. Therssen, PC2A - USTL, Villeneuve d'Ascq, France; J. Blarel, Chambre d'agriculture, Lille, France; F. Douay, ISA, Lille, France

4AV.2.14

DEVELOPMENT OF SOIL AMENDMENTS PRODUCED FROM MUNICIPAL ORGANIC WASTE DIGESTATE DURING A TWO-YEAR FIELD STUDY

Christine KNOOP, Brandenburg University of Technology, Geopedology and Landscape Development, GERMANY

Co-authors: N. Dietrich, M. Heinrich, T. Raab, Brandenburg University of Technology, Cottbus, Germany; C. Dornack, Technische Universität, Dresden, Germany

4AV.2.16

COMPARISON OF SWEET SORGHUM, GIANT REED AND POPLAR AS SOIL NITRATE SCAVENGERS WITH CATTLE MANURE APPLICATION

Enrico CEOTTO, CREA- Council for Agricultural Research and Economics, ITALY
Co-authors: F. Castelli, CREA, Bovolone, Italy; R. Marchetti, CREA, Modena, Italy

4AV.2.17

FOREST BIOMASS IN CANADA: FROM FEEDSTOCK AVAILABILITY TO CLIMATE CHANGE MITIGATION POTENTIAL

Jérôme LAGANIÈRE, Natural Resources Canada, Canadian Forest Service, CANADA
Co-authors: D. Paré, P. Bernier, N. Mansuy, J. Barrette, Natural Resources Canada, Québec City, Canada; E. Thiffault, Université Laval, Québec City, Canada

4AV.2.18

ENVIRONMENTAL AND ECONOMIC PERFORMANCES OF CEREAL STRAW END-PRACTICES

Luigi PARI, CREA- Council for Agricultural Research and Economics, Unità di Ricerca per l'Ingegneria Agraria - CREA-ING, ITALY
Co-authors: N. Palmieri, M.B. Forleo, University of Molise, Campobasso, Italy; G. Giannoccaro, University of Bari, Italy; A. Suardi, Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria, Roma, Italy

4AV.2.19

EFFECT OF BIOCHAR ON WATER RETENTION IN SOIL, A COMPARISON BETWEEN TWO FORMS: POWDER AND PELLET

Pietro BARTOCCI, University of Perugia, Biomass Research Centre, ITALY
Co-authors: F.P. Vaccari, S. Baronti, IBIMET, Firenze, Italy; M. Valagussa, MAC, Como, Italy; A. Pozzi, ICHAR, Firenze, Italy; F. Liberti, G. Bidini, F. Fantozzi, University of Perugia, Italy

4AV.2.20

EFFECT OF WOOD PRE-TREATMENT ON OPERATING CONDITIONS, GASEOUS AND PARTICULATE EMISSIONS OF A PELLET STOVE - FIRST ANALYTICAL CAMPAIGN

Paul GENEVRAY, Université du Littoral Côte d'Opale, CCM Dpt., FRANCE
Co-authors: G. Schmidt, G. Leysens, G. Trouvé, V. Tschamber, C. Schönnenbeck, GRE Laboratory, Mulhouse, France; F. Cazier, D. Dewaele, C. Vandenbilcke, CCM Laboratory, Dunkerque, France; S. Labbé, Lorflam, Caudan, France; F. Balay, Lorflam/ CCM Laboratory, Caudan, France; Y. Denance, E. Faivre, Inovalp, Susville, France; C. Le-Dreff, CSTB Laboratory, Nantes, France; N. Adam, Agrivalor, Hirsingue, France

4AV.2.22

ASSESSING POSSIBLE EMISSION REDUCTIONS IN THE ENERGY MIX: UNCONVENTIONAL GAS OR MISCANTHUS BIOMASS?

Iosif GYPARIS, University of Piraeus Research Center, GREECE
Co-author: D. Sidiras, University of Piraeus Research Center, Piraeus, Greece

4AV.2.23

ENVIRONMENTAL PRELIMINARY RESULTS USING LCA METHODOLOGY OF A BIOREFINERY FED WITH OLIVE PRUNING IN ANDALUSIA

Carmen LAGO, CIEMAT, Energy Dpt., SPAIN
Co-authors: I. Herrera, Y. Lechón, P. Manzanares, A.I. Susmozas, CIEMAT, Madrid, Spain; E. Ruíz, Universidad de Jaén, Spain

4AV.2.24

FRAMEWORK FOR BIOENERGY IMPLEMENTATION IN MUNICIPAL BUILDINGS

Clara VALENTE, Ostfold Research, NORWAY

Co-authors: E. Soldal, F. Moltu Johnsen, H. Lerche Raadal, O.J. Hanssen, Ostfold Research, Kråkerøy, Norway; F. Verdú, Geodata, Oslo, Norway

4AV.2.26

ASSESSMENT OF BIOGAS PRODUCTION PATHWAYS: APPLICATION TO PORTUGAL

Patrícia BAPTISTA, IST-ID, Mechanical Engineering, PORTUGAL

Co-authors: M. Lopes, A. Moreira, IN+, Universidade de Lisboa, Lisbon, Portugal; E. Duarte, ISA, Universidade de Lisboa, Lisbon, Portugal

4AV.2.27

FERTILIZERS AND SOIL IMPROVING PRODUCTS MADE OF BIOWASTE DIGESTATES: RESULTS FROM POT EXPERIMENTS WITH AVENA SATIVA L. AND BRASSICA NAPUS L.

Christina-Luise ROSS, Institut für Agrar- und Stadtökologische Projekte, Biogenic Resources Dpt., GERMANY

Co-authors: K. Sensel-Gunke, V. Wilken, Institute of Agricultural and Urban Ecological Projects, Berlin, Germany; U. Herbst, Humboldt University Berlin, Berlin, Germany

4AV.2.28

BIO-CLC, A NOVEL APPROACH FOR ATTAINING NEGATIVE EMISSIONS OF CO₂ AT REDUCED COST

Anders LYNGFELT, Chalmers University of Technology, Energy and Environment Dept., SWEDEN

Co-author: M. Nieminen, VTT, Espoo, Finland

4AV.2.29

MONITORING OF FUGITIVE METHANE EMISSIONS FROM BIOGAS PLANTS

Torsten REINELT, DBFZ-German Biomass Research Centre, Biochemical Conversion Dpt., GERMANY

Co-author: J. Liebetrau, DBFZ-German Biomass Research Centre, Leipzig, Germany

4AV.2.30

ENVIRONMENTAL ASSESSMENT OF BLACK LIQUOR CO-GASIFICATION WITH BY-PRODUCT BIOMASS RESOURCES

Johanna OLOFSSON, Lund University, Environmental and Energy Systems Studies Dpt., SWEDEN

Co-authors: L. Carvalho, J. Lundgren, E. Furusjö, E. Wetterlund, Luleå University of Technology, Sweden; P. Börjesson, Lund University, Sweden

4AV.2.33

WASTE GENERATED FROM BIOMASS COMBUSTION: WOOD ASH REUSE AS AN ADDITIVE IN COMPOSTING

Carla ASQUER, Sardegna Ricerche, Biomass and Biofuel Laboratory, ITALY

Co-authors: G. Cappai, G. De Gioannis, A. Muntoni, M. Piredda, D. Spiga, University of Cagliari, Department of Civil and Environmental Engineering and Architecture, Italy

4AV.2.34

POTENTIAL CARBON DIOXIDE SEQUESTRATION USING BIOMASS COMBUSTION ASH

Carla ASQUER, Sardegna Ricerche, Biomass and Biofuel Laboratory, ITALY

Co-authors: G. Ca, G. De Gioannis, A. Muntoni, A. Nieddu, M. Piredda, University of Cagliari, Department of Civil and Environmental Engineering and Architecture, Cagliari, Italy

CONFERENCE PROGRAMME

MONDAY, 12 JUNE 2017

4AV.2.37

NITROGEN ASSESSMENT IN SMALL SCALE BIOMASS HEATING SYSTEMS

Monika ENIGL, Bioenergy 2020+, AUSTRIA

Co-authors: C. Strasser, C. Schmidl, Bioenergy 2020+, Wieselburg, Austria; E. Hochbichler, University of Natural Resources and Life Sciences, Vienna, Austria

4AV.2.39

CLIMATE PERFORMANCE OF LIGNO-CELLULOSE-BASED BIOFUELS

Nathalie BECKER, Lund University, Technology and Society Dpt., SWEDEN

Co-authors: P. Börjesson, L. Björnsson, Lund University, Sweden

4AV.2.40

AN ADVANCED LCA-MODEL TARGETED TO BIOENERGY SYSTEMS AND TECHNOLOGIES: RECENT DEVELOPMENTS OF THE EASETECH LCA-MODEL

Concetta LODATO, Technical University of Denmark, Environmental Engineering Dpt., DENMARK

Co-authors: D. Tonini, A. Damgaard, T. F. Astrup, Department of Environmental Engineering, Technical University of Denmark, Lyngby, Denmark

4AV.2.45

BIOMASS ACCIDENT INVESTIGATIONS - MISSED OPPORTUNITIES FOR LEARNING AND ACCIDENT PREVENTION

Frank H. HEDLUND, COWI, DENMARK

16:45 - 17:00

BREAK

17:00 - 18:30

ORAL SESSION 1AO.7

Biomass Supply Logistics

ROOM: K21

CHAIRPERSONS:

Tapio RANTA, Lappeenranta University of Technology, FINLAND

Wolter ELBERSEN, Wageningen Research, THE NETHERLANDS

1AO.7.1

LOGISTICAL CASE STUDY FOR THE ARAGON REGION USING THE LOCAGISTICS TOOL

Bert ANNEVELINK, Wageningen Food & Biobased Research, Biorefinery & Sustainable Value Chains Dpt., THE NETHERLANDS

Co-authors: E. Annevelink, Wageningen Food & Biobased Research, Wageningen, The Netherlands; D. Garcia Galindo, S. Espatolero, CIRCE Foundation, Zaragoza, Spain; I. Staritsky, Wageningen Environmental Research (Alterra), Wageningen, The Netherlands

1AO.7.2

SIMULATION-BASED ASSESSMENT OF THE PROPERTIES AND PERFORMANCE OF A BIOMASS TERMINAL

Olli-Jussi KORPINEN, Lappeenranta University of Technology, Laboratory of Bioenergy, FINLAND

Co-authors: M. Aalto, T. Ranta, Lappeenranta University of Technology, Mikkeli, Finland; M. Virkkunen, J. Raitila, VTT Technical Research Centre of Finland, Jyväskylä, Finland

1AO.7.3

THE ENERGETIC RECOVER OF BIOMASS FROM RIVER MAINTENANCE: THE REBAF PROJECT

Simone PEDRAZZI, University of Modena and Reggio Emilia, Department of Engineering "Enzo Ferrari" - Bio-Energy Efficiency Laboratory (BEELAB), ITALY
Co-authors: G. Allesina, N. Morselli, M. Puglia, L. Barbieri, I. Lancellotti, P. Tartarini, University of Modena and Reggio Emilia, Modena, Italy; E. Ceotto, CREA-CIN, Bologna, Italy; L. Giorgini, University of Bologna, Italy; A. Malcevski, University of Parma, Italy; C. Pederzini, Campogalliano Municipality, Modena, Italy

1AO.7.4

ANALYSIS OF A TRANSFORMATION PROCESS OF VINEYARD PRUNING INTO CHIPS BY A MICRO PLANT

Carlo BISAGLIA, CREA-ING, ITALY
Co-author: E. Romano, CREA-ING, Treviglio, Italy

1AO.7.5

IDENTIFICATION OF ENERGY HUBS FOR THE EXPLOITATION OF RESIDUAL BIOMASS IN AN AREA OF WESTERN SICILY

Salvatore LA BELLA, University of Palermo, Agricultural and Forest Sciences Dpt., ITALY
Co-authors: S. Orlando, C. Greco, T. Tuttolomondo, C. Leto, I. Cammalleri, University of Palermo, Italy

17:00 - 18:30

ORAL SESSION 2AO.8

Novel Technologies and Surface Chemistry in Large Utilities

ROOM: K2

CHAIRPERSONS:

Lasse ROSENDAHL, Aalborg University, DENMARK
Vladimir KUPRIANOV, Thammasat University, THAILAND

2AO.8.1

LOW-TEMPERATURE CORROSION IN BIOMASS-FIRED COMBUSTION PLANTS - ONLINE MEASUREMENT OF CORROSION RATES, ACID DEW POINTS AND DELIQUESCENT CORROSION

Thomas BRUNNER, Bios Bioenergiesysteme, AUSTRIA
Co-authors: E. Reisenhofer, I. Obernberger, W. Kanzian, M. Forstinger, BIOS Bioenergiesysteme, Graz, Austria

2AO.8.2

INVESTIGATIONS ON THE FORMATION AND CLASSIFICATION OF SLAGS FROM COMBUSTION CHAMBERS OF BMHP PLANTS

Jürgen REICHELT, IBR, GERMANY
Co-authors: G. Pfrang-Stotz, Karlsruhe Institute of Technology - ITC, Germany; B. Bergfeldt, Karlsruhe Institute of Technology -ITC, Germany

2AO.8.3

ASSESSMENT OF ASH AGGLOMERATION AND FOULING IN COMBUSTION BY THEORETICAL AND EXPERIMENTAL BIOMASS FUELS CHARACTERIZATION

Lucio DE FUSCO, Université Catholique de Louvain, iMMC Dpt., BELGIUM

2AO.8.4

CHEMICAL-LOOPING COMBUSTION OF BIOMASS IN A 100 KW PILOT

Carl LINDERHOLM, Chalmers University of Technology Göteborg, Energy and Environment Dpt., SWEDEN

Co-authors: A. Lyngfelt, M. Rydén, M. Schmitz, Chalmers University of Technology, Göteborg, Sweden

2AO.8.5

BIOMASS CO-FIRING STUDIES IN PILOT SCALE COMBUSTION SYSTEMS: EFFECTS OF BIOMASS CO-FIRING METHODS TO IN-FURNACE NOX REDUCTION

Won YANG, Korea Institute of Industrial Technology, Thermochemical Energy System R&D Group, REPUBLIC OF KOREA

Co-authors: T. Chae, J. Lee, Y. Lee, B. Kang, U. Lee, Korea Institute of Industrial Technology, Cheonan-si, Chungchungnam-do, Republic of Korea; C. Ryu, Sungkyunkwan University, Suwon, Kyunggi-do, Republic of Korea

17:00 - 18:30

ORAL SESSION 3AO.9

Biorefinery Products

ROOM: K1

CHAIRPERSONS:

René VAN REE, Wageningen University, THE NETHERLANDS

Maria GEORGIADOU, European Commission, DG Research, BELGIUM

3AO.9.1

ALKANE PRODUCTION FROM BIOMASS: A CHEMOCATALYTIC LIQUID PHASE CELLULOSE-TO-NAPHTHA PROCESS

Aron DENEYER, KU Leuven, Center for Surface Chemistry and Catalysis, BELGIUM

Co-authors: M. Dusselier, B. Sels, KU Leuven, Heverlee, Belgium

3AO.9.2

MAKING THE BRIDGE BETWEEN BIOMASS AND HYDROCARBON IN A STANDARD REFINERY

Marcelo PEREIRA, Universidade Federal do Rio de Janeiro, Chemistry Dpt., BRAZIL

Co-authors: J. Pinto, L. Soter, Universidade Federal do Rio de Janeiro, Brazil

3AO.9.3

CARBOHYDRATES AND FURANS FROM SEAWEEDS FOR FUELS AND CHEMICALS

Wouter HUIJGEN, Energy Research Centre of the Netherlands, Biomass & Energy Efficiency Dpt., THE NETHERLANDS

Co-authors: G. van Hees, A.T. Smit, J.W. van Hal, Energy Research Centre of the Netherlands, Petten, The Netherlands

3AO.9.4

FISCHER-TROPSCH SYNTHESIS: EFFECTS OF FEEDSTOCK LOAD CHANGES REGARDING PRODUCT QUALITY AND CATALYST ATTRITION

Hannes GRUBER, TU Wien, Institute of Chemical, Environmental & Biological Engineering, AUSTRIA

Co-authors: P. Groß, H. Hofbauer, C. Aichernig, TU Wien, Vienna, Austria; R. Rauch, Bioenergy 2020+, Güssing, Austria; R. Zweiler, J. Niel, D. Wahringner, A. Reichhold, TU Wien, Wien, Austria; G. Weber, Bioenergy 2020+ GmbH, Güssing, Austria; J. Loipersböck, 2020+ GmbH, Güssing, Austria

3AO.9.5

PRODUCTION OF FUEL ETHANOL AND HIGHER ALCOHOLS FROM BIOMASS RESIDUE

Matthias BINDER, Bioenergy 2020+, AUSTRIA

Co-authors: M. Summers, C. Liao, M. Hoffman, M. Hart, West Biofuels, Woodland, CA, Usa; R. Seiser, U. Neimann, R. Cattolica, UC San Diego, La Jolla, CA, Usa; R. Rauch, Bioenergy 2020+, Guessing, Austria

17:00 - 18:30

VISUAL PRESENTATIONS 3AV.3

Fundamental Investigation of Liquefaction Processes

ROOM: Poster Area

CHAIRPERSONS:

Wim VAN SWAAIJ, University of Twente, THE NETHERLANDS

Jean-Michel LAVOIE, Université de Sherbrooke, CANADA

Andreas APFELBACHER, Fraunhofer-Institut UMSICHT, GERMANY

3AV.3.1

PRODUCING SINGLE PHASE FAST PYROLYSIS CONDENSATES FROM STRAW BY STAGED CONDENSATION

Stefan CONRAD, Fraunhofer-Institut UMSICHT, Biorefinery and Biofuels Dpt., GERMANY

Co-authors: T. Schulzke, C. Blajin, Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Oberhausen, Germany

3AV.3.2

A COMBINED PROCESS OF ACID EXTRACTION AND PYROLYSIS OF MANURE TO RECOVER PHOSPHORUS AND OBTAIN SOLID ADSORBENTS

Gloria GEA, University of Zaragoza, Chemical Engineering Dpt., SPAIN

Co-authors: M. Atienza-Martínez, N. Ruiz-Gómez, M. García, J. Ábrego, Aragón Institute for Engineering Research (I3A), Universidad de Zaragoza, Zaragoza, SPAIN; I. Fonts, Centro Universitario de la Defensa, Zaragoza, SPAIN

3AV.3.6

ENHANCING PYROLYSIS OILS' THERMAL STABILITY BY SUPERCRITICAL CARBON DIOXIDE AS A SOLVENT

Clarissa BAEHR, Karlsruhe Institute of Technology, Institute of Catalysis Research and Technology, GERMANY

3AV.3.15

CHARACTERIZATION OF LIGHT AND HEAVY PHASE OF PYROLYSIS-OILS FROM DISTINCT BIOMASS FOR FURTHER UPGRADING REACTIONS

Caroline CARRIEL SCHMITT, Karlsruhe Institute of Technology, IKFT Dpt., GERMANY

Co-authors: C. Boscagli, K. Raffelt, N. Dahmen, Karlsruhe Institute of Technology IKFT, KARLSRUHE, Germany; M. Rapp, Karlsruhe Institute of Technology IMT, KARLSRUHE, Germany

3AV.3.19

PYROLYSIS AND IN-LINE REFORMING OF BIOMASS: EFFECT OF CATALYST DEACTIVATION ON HYDROGEN PRODUCTION

Laura SANTAMARIA, University of the Basque Country, Chemical Engineering Dpt., SPAIN

Co-authors: A. Arregi, G. Lopez, M. Amutio, M. Artetxe, J. Alvarez, I. Barbarias, M. Olazar, University of the Basque Country (EHU/UPV), Bilbao, Spain

3AV.3.20

EFFECT OF PROMOTER LA2O3 ON NI/AL2O3 CATALYSTS IN THE STEAM REFORMING OF VOLATILES DERIVED FROM BIOMASS PYROLYSIS

Laura SANTAMARIA, University of the Basque Country, Chemical Engineering Dpt., SPAIN

Co-authors: G. Lopez, M. Amutio, M. Artetxe, J. Alvarez, I. Barbarias, A. Arregi, M. Olazar, University of the Basque Country (EHU-UPV), Bilbao, Spain

3AV.3.21

THERMOCHEMICAL CONVERSION OF TEXTILE WASTE TO USEFUL COMMODITIES

Roozbeh KALATEH, Heriot-Watt University, School of Engineering and Physical Sciences, UNITED KINGDOM

Co-author: A. Sanna, Heriot-Watt University, Edinburgh, United Kingdom

3AV.3.24

PYROLYSIS OF DIGESTED AND NON-DIGESTED MANURE. A COMPARATIVE STUDY

Gloria GEA, University of Zaragoza, Chemical Engineering Dpt., SPAIN

Co-authors: N. Ruiz-Gómez, F. Molinés, D. Aznar, J. Ábrego, M.B. Murillo, Thermochemical Processes Group (GPT), Aragón Institute for Engineering Research (I3A), Universidad de Zaragoza, Spain

3AV.3.26

PRODUCT DISTRIBUTION AND HEAT FOR PYROLYSIS OF DRY SEWAGE SLUDGE

María ATIENZA-MARTÍNEZ, Universidad de Zaragoza, Aragón Institute for Engineering Research, SPAIN

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3AV.3.28

PY-GCXC MS FOR STUDYING THERMAL AND CATALYTIC PYROLYSIS OF BIOMASS

Linda SANDSTRÖM, RISE Bioeconomy, SP ETC, SWEDEN

Co-author: A.-C. Johansson, SP Energy Technology Center AB, Piteå, Sweden

3AV.3.30

EVALUATION OF BIOCHAR BASED PRODUCTS AS HYDROTREATING CATALYSTS FOR THE PRODUCTION OF RENEWABLE FUEL

Roelf VENTER, North West University, Chemical and Minerals Engineering Dpt., SOUTH AFRICA

Co-authors: S. Marx, C. Schabort, J.G. Booyen, North-West University, Potchefstroom, South Africa

3AV.3.32

VALUE ENHANCEMENT OF MICROALGAE UTILIZATION EMPLOYING MILD EXTRACTION AND HYDROTHERMAL TREATMENT FOR PROTEIN AND BIO-OIL PRODUCTION

Chinnathan AREEPRASERT, Kasetsart University, Mechanical Engineering Dpt., THAILAND

Co-authors: A. Kuhavichanan, J. Kaharn, Kasetsart University, Bangkok, Thailand; P. Kusolkumbot, A. Suemanotham, S. Sirisattha, Thailand Institute of Scientific and Technological Research, Pathum Thani, Thailand

3AV.3.33

MICROWAVE PYROLYSIS OF LIGNOCELLULOSIC BIOMASS IN SOLVENTS TO PRODUCE FUELS, SUGARS AND HIGH VALUE CHEMICALS

Benjamin SHEPHERD, University of Nottingham, Chemical & Environmental Engineering, UNITED KINGDOM

Co-authors: J. Robinson, E.T. Kostas, University of Nottingham, University of Nottingham, United Kingdom

3AV.3.37

RELEASE AND TRANSFORMATION OF CHLORINE AND POTASSIUM DURING PYROLYSIS OF KCL-LOADED CELLULOSE

Haibo ZHAO, Tsinghua University, Thermal Engineering Dpt., P.R. CHINA
Co-authors: Q. Song, Q. Yao, Tsinghua University, Beijing, P.R. China

3AV.3.38

TWO-STEP PYROLYSIS OF BIOMASS AS A METHOD TO ENHANCE FUEL QUALITY OF PYROLYTIC LIQUIDS

Henry PERSSON, KTH Royal Institute of Technology, Material Science and Engineering Dpt., SWEDEN
Co-authors: P. Evangelopoulos, W. Yang, KTH Royal Institute of Technology, Stockholm, Sweden

3AV.3.39

CHARACTERISATION OF THE TWIN SCREW MIXING REACTOR USED FOR FAST PYROLYSIS OF BIOMASS

Robert GRANDL, Karlsruhe Institute of Technology, IKFT Dpt., GERMANY
Co-authors: A. Funke, N. Dahmen, J. Sauer, Karlsruhe Institute of Technology - IKFT Dpt., Eggenstein-Leopoldshafen, Germany

3AV.3.42

ALTERNATIVE FUELS FROM BIOMASS AND POWER (PBTL) - A CASE STUDY ON PROCESS OPTIONS, TECHNICAL POTENTIALS, FUEL COSTS AND ECOLOGICAL PERFORMANCE

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3AV.3.45

BIOMASS PYROLYSIS: A SET OF COMPLEMENTARY ANALYTICAL METHODS AVAILABLE AT CNRS

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3AV.3.48

CHARACTERIZATION OF DE- AND REPOLYMERIZATION PRODUCTS FROM LIGNIN HYDROTHERMAL TREATMENT BY ANALYTICAL PYROLYSIS

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3AV.3.50

EFFECTS OF SUBSTITUENTS ON THE INITIAL PYROLYSIS MECHANISM OF β -O-4 TYPE LIGNIN DIMER MODEL COMPOUNDS

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3AV.3.52

REFORMING OF RAW PYROLYSIS OILS WITH A NEW CATALYST DERIVED FROM NICKEL FUNCTIONALIZATION OF A MINING RESIDUE

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3AV.3.58

17 YEARS OF INTERMEDIATE PYROLYSIS: A MAJOR STEP TOWARDS CHP APPLICABLE BIO-OILS

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3AV.3.59

FAST PYROLYSIS OF PINE WOOD AT PRE-INDUSTRIAL SCALE: YIELDS AND PRODUCTS CHEMICAL-PHYSICAL CHARACTERISATION

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3AV.3.62

UPGRADING OF FAST PYROLYSIS BIO-OIL IN SUPERCRITICAL ALCOHOLS

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3AV.3.63

ENERGY PRODUCTION FROM CHICKEN LITTER BY PYROLYSIS AND TORREFACTION

Olga LARINA, Joint Institute for High Temperatures of the Russian Academy of Sciences, RUSSIAN FEDERATION

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3AV.3.65

UP-SCALING A PROTOTYPE TOP-LIT UP-DRAFT PYROLYSIS (TLUD-PYRO) REACTOR

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3AV.3.66

THERMOGRAVIMETRIC ANALYSIS OF BIOMASS PYROLYSIS USING A PEAK TEMPERATURE METHOD

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3AV.3.68

A SOLAR DRIVEN THERMOCHEMICAL PROCESS FOR THE PRODUCTION OF BIOFUEL

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19:30 - WELCOME RECEPTION



Stockholms stad

**The City of Stockholm (Stockholms Stad) welcomes
the EUBCE delegates and exhibitors from around
the world to the Stockholm City Hall
for a Reception on
Monday the 12th of June 2017
at 7.00 pm.***



The Stockholm City Hall is one of Sweden's most famous buildings, and one of the capital's most visited tourist attractions. It is famous for its grand ceremonial halls and unique pieces of art and is the venue of the Nobel Prize banquet held on 10th of December each year. It also houses offices for 200 people including the Municipal Council. The exclusive atmosphere and historical setting of the Blue Hall makes it a popular venue for international award ceremonies and concerts. Ceremonies for the awarding of Doctorates and other academic degrees are also a regular feature of the Blue Hall and are much appreciated events.

* A shuttle bus will leave from Stockholmsmässan at 18:30