

**Boreskov Institute of Catalysis of the Siberian Branch of the Russian  
Academy of Sciences, Novosibirsk, Russia**

**Lund University, Sweden**



**Second International Conference**  
**CATALYSIS FOR RENEWABLE SOURCES:**  
**FUEL, ENERGY, CHEMICALS**  
**CRS-2**

*Lund, Sweden,  
July 22-28, 2013*

**SCIENTIFIC PROGRAM**

*Novosibirsk, 2013*






**Scientific Program of the  
Second International Conference  
CATALYSIS FOR RENEWABLE SOURCES: FUEL, ENERGY, CHEMICALS  
CRS-2**

**INTERNATIONAL SCIENTIFIC COMMITTEE**

**Valentin N. Parmon**, *Chairman, Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*  
**Dmitry Yu. Murzin**, *Vice-Chairman, Åbo Akademi University, Turku, Finland*  
**Donato A.G. Aranda**, *Federal University of Rio de Janeiro, Brazil*  
**Vasily A. Babkin**, *Favorsky Irkutsk Institute of Chemistry SB RAS, Irkutsk, Russia*  
**Anthony Bridgwater**, *Aston University, UK*  
**Jamal Chaouki**, *Polytechnique Montréal, Canada*  
**Raghunath V. Chaudhari**, *University of Kansas, USA*  
**Buxing Han**, *Institute of Chemistry CAS, Beijing, China*  
**Erik Heeres**, *University of Groningen, The Netherlands*  
**Can Li**, *Dalian Institute of Chemical Physics, CAS, China*  
**Jyri-Pekka Mikkola**, *Umeå University, Sweden*  
**Alexander S. Noskov**, *Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*  
**Martyn Poliakoff**, *The University of Nottingham, UK*  
**Parasuraman Selvam**, *Indian Institute of Technology, India*  
**Sergei Varfolomeev**, *Emanuel Institute of Biochemical Physics RAS, Russia*  
**Victor Zaichenko**, *Joint Institute of High Temperatures, Moscow, Russia*

**Dr. Vadim Yakovlev**, *Chairman of the Organizing Committee,  
Boreskov Institute of Catalysis SB RAS, Novosibirsk, Russia*

**SCIENTIFIC PROGRAM**

-  **Section I.** *Catalytic processes for valuable production from biomass*
-  **Section II.** *Catalytic processes for biofuel production*
-  **Section III.** *Catalyst application for clean syn-gas and clean hydrogen production*
-  **Section IV.** *Catalytic Processes in Oleochemistry*
-  **Section V.** *Catalytic approaches for the processing of pyrolysis biomass products*

**We wish you a fruitful work at the conference  
and a pleasant stay in Sweden!**

July 22, Monday

8.50 Opening

**PLENARY LECTURES**  
**Auditorium HALL**

**Chairperson – Dr. Vadim Yakovlev, Boreskov Institute of Catalysis SB RAS, Russia**

9.00

**PL-1**

**Professor Jan Brandin**

USAGE OF BIOFUELS IN SWEDEN

*Linnaeus University (Växjö), Sweden*

10.00

**PL-2**

**Professor Sergei Varfolomeev**

RENEWABLE ENERGY, WTF TECHNOLOGIES, NEW PROCESSES AND NEW CHALLENGES

*Emanuel Institute of Biochemical Physics RAS, Moscow, Russia*

**KEY-NOTE LECTURE**

11.00

**KN-1**

**Hulteberg C.<sup>1</sup>, Brandin J.<sup>2,3</sup>, Leveau A.<sup>3</sup>**

SELECTIVE CATALYSTS FOR GLYCEROL DEHYDRATION

<sup>1</sup>*Lund University (Lund), Sweden*

<sup>2</sup>*Linnaeus University (Växjö), Sweden*

<sup>3</sup>*Biofuel-Solution AB (Limhamn), Sweden*

**11.30 – 12.00**

**Coffee**

## ORAL PRESENTATIONS SECTION I

Catalytic processes for valuables production from biomass

Auditorium HALL

**Chairperson – Dr. Francesco Frusteri, CNR-ITAE “Nicola Giordano”, Italy**

12.00

OP-I-1

**Mäki-Arvela P.<sup>1</sup>, Kumar N.<sup>1</sup>, Aho A.<sup>1</sup>, Diaz S.<sup>1</sup>, Stekrova M.<sup>1</sup>, Volcho K.<sup>2</sup>,  
Salakhutdinov N.<sup>2</sup>, Sinev I.<sup>3</sup>, Salmi T.<sup>1</sup>, Murzin D.<sup>1</sup>**

ISOMERIZATION OF TERPENE OXIDES TO VALUABLE CHEMICALS OVER METAL  
MODIFIED ZEOLITES AND MESOPOROUS MATERIALS

<sup>1</sup>Åbo Akademi University (Turku), Finland

<sup>2</sup>N.N. Vorozhtsov Novosibirsk Institute of Organic Chemistry (Novosibirsk), Russia

<sup>3</sup>University of Ruhr (Bochum), Germany

12.20

OP-I-1 (OP-V-3)

**Bykova M.V.<sup>1,2</sup>, Ermakov D.Yu.<sup>1</sup>, Bulavchenko O.A.<sup>1</sup>, Kaichev V.V.<sup>1</sup>, Saraev A.A.<sup>1</sup>,  
Rekhtina M.A.<sup>1,2</sup>, Yakovlev V.A.<sup>1,3</sup>**

Ni-BASED CATALYSTS WITH IMPROVED STABILITY FOR BIO-OIL HYDROTREATMENT

<sup>1</sup>Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia

<sup>2</sup>Novosibirsk State University (Novosibirsk), Russia

<sup>3</sup>UNICAT Ltd. (Novosibirsk), Russia

12.40

OP-I-3

**Isa Y.M.<sup>1</sup>, Tretiyakov V.F.<sup>2</sup>, Rabiou A.<sup>1</sup>**

EFFECTS OF SYNTHESIS PARAMETERS AND CATALYST MORPHOLOGY ON THE  
PRODUCT DISTRIBUTION OF BIOETHANOL CONVERSION

<sup>1</sup>Cape Peninsula University of Technology (Cape Town), South Africa

<sup>2</sup>A.V. Topchiev Institute of Petrochemical Synthesis RAS (Moscow), Russia

13.00-15.00

Lunch

## SECTION I

Catalytic processes for valuables production from biomass

Auditorium HALL

**Chairperson – Professor Simoni Plentz Meneghetti, Federal University of Alagoas,  
Brazil**

15.00

OP-I-4

**Piskun A.<sup>1</sup>, Rasrendra C.<sup>1</sup>, Luo W.<sup>2</sup>, Bruijninx P.C.A.<sup>2</sup>, Melián-Cabrera I.<sup>1</sup>,  
Weckhuysen B.<sup>2</sup>, Heeres H.<sup>1</sup>**

KINETIC MODELING OF LEVULINIC ACID HYDROGENATION TO  $\gamma$ -VALEROLACTONE

<sup>1</sup>University of Groningen (Groningen), The Netherlands

<sup>2</sup>Utrecht University (Utrecht), The Netherlands

15.20

OP-I-5

**Krishna N., Anuradha S., Kumar V.V., Selvam P.**

ACETONATION OF GLUCOSE OVER SULFONIC ACID FUNCTIONALIZED ORDERED MESOPOROUS SILICA

*Indian Institute of Technology-Madras (Chennai), India*

15.40

OP-I-7

**Gofferjé G.<sup>1</sup>, Stäbler A.<sup>1</sup>, Flöter E.<sup>2</sup>**

IMPACT OF GLYCEROL ON *RHIZOMUCOR MIEHEI* LIPASE ACTIVITY DURING ENZYMATIC DEACIDIFICATION OF *JATROPHA CURCAS* CRUDE OIL

<sup>1</sup>*Fraunhofer Institute for Process Engineering and Packaging (IVV) (Freising), Germany*

<sup>2</sup>*Institute for Food Technology and Food Chemistry, Technical University Berlin (Berlin), Germany*

16.00

OP-I-8

**Candu N., Neculai F., Tudorache Madalina, Parvulescu V.I., Coman S. M.**

MAGNETICALLY NANOPARTICLES WITH ACID PROPERTIES FOR LEVULINIC ACID SYNTHESIS FROM CELLULOSE

*University of Bucharest (Bucharest), Romania*

16.20

OP-I-6

**Simanjuntak F.<sup>1,2</sup>, Lee S.D.<sup>1,2</sup>, Ahn B.S.<sup>1,2</sup>, Lee H.<sup>1,2</sup>**

SYNTHESIS OF GLYCEROL CARBONATE FROM GLYCEROL AND DIMETHYL CARBONATE USING CaO: IDENTIFICATION OF ACTIVE CATALYST FORM

<sup>1</sup>*Clean Energy Center, Korea Institute of Science and Technology (Seoul), South Korea*

<sup>2</sup>*Green Process and System Engineering, University of Science and Technology (Daejeon), South Korea*

**16.40 – 17.00**

**Coffee**

**17.00 Guide Excursion around Lund**



## ORAL PRESENTATIONS SECTION II

Catalytic processes for biofuel production

### Hornsbergssalen HALL

**Chairperson – Dr. Dmitri Bulushev, University of Limerick, Ireland**

12.00

OP-II-1

**Bauer F., Hulteberg C.**

ISOBUTANOL FROM GLYCEROL

*Lund University (Lund), Sweden*

12.20

OP-II-2

**O'Connell M.<sup>1</sup>, Wiborg O.<sup>1</sup>, Kolb G.<sup>1</sup>, Resa I.<sup>2</sup>, Jayamurthy M.<sup>2</sup>, Komodromos C.<sup>2</sup>,  
Bhattacharya A.<sup>2</sup>**

NOVEL REACTOR AND CATALYTIC ENGINEERING FOR BIO AND GREEN FUEL  
PRODUCTION

<sup>1</sup>*Institute für Mikrotechnik Mainz GmbH (Mainz), Germany*

<sup>2</sup>*Wolfson Centre for Materials Processing, Brunel University (London), United Kingdom*

12.40

OP-II-3 (OP-III-6)

**Arapova M.<sup>1</sup>, Pavlova S.<sup>1</sup>, Sadykov V.<sup>1,2</sup>, Rogov V.<sup>1,2</sup>, Krieger T.<sup>1</sup>, Ishchenko A.<sup>1</sup>, Roger A.<sup>3</sup>**  
Ni(Co)-CONTAINING CATALYSTS BASED ON PEROVSKITE-LIKE FERRITES FOR  
STEAM REFORMING OF ETHANOL

<sup>1</sup>*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*

<sup>2</sup>*Novosibirsk State University (Novosibirsk), Russia*

<sup>3</sup>*Laboratoire des Matériaux Surfaces et Procédés pour la Catalyse, University of Strasbourg  
(Strasbourg), France*

**13.00-15.00**

**Lunch**

## SECTION II

Catalytic processes for biofuel production

### Hornsbergssalen HALL

**Chairperson – Professor Konstantinos Triantafyllidis, Aristotle University of  
Thessaloniki, Greece**

15.00

OP-II-4

**Tretiyakov V.F.<sup>1,3</sup>, Sedghe Rouhi B.<sup>1,2</sup>, Makarfi I.<sup>3</sup>, Tretiyakov K.<sup>3</sup>, Frantsuzova N.<sup>3</sup>**

CATALYTIC CONVERSION OF BIOETHANOL INTO HYDROCARBON FUEL

<sup>1</sup>*A.V. Topchiev Institute of Petrochemical Synthesis RAS (Moscow), Russia*

<sup>2</sup>*Gubkin Russian State University of oil and gas (Moscow), Russia*

<sup>3</sup>*M.V. Lomonosov Moscow State Academy of Fine Chemical Technology (Moscow), Russia*

**15.20**

**OP-II-5**

**Pardo F.T.<sup>1,2</sup>, Järås S.<sup>1</sup>, Marinas A.<sup>3</sup>, Cabrera S.<sup>2</sup>, Boutonnet M.<sup>1</sup>**

ORDERED MEOPROUS MATERIALS ON COBALT BASED CATALYSTS FOR FISCHER TROPSCH SYNTHESIS

<sup>1</sup>*Royal Institute of Technology (KTH), School of Chemical Science and Engineering (Stockholm), Sweden*

<sup>2</sup>*Universidad Mayor de San Andrés, Instituto del Gas Natural (La Paz), Bolivia*

<sup>3</sup>*Cordoba University (Cordoba), Bolivia*

**15.40**

**OP-II-6**

**Parsland C., Brandin J.**

NICKEL-SUBSTITUTED Ba-HEXAALUMINATES AS CATALYSTS IN STEAM-REFORMING OF TARS

*Linnaeus University (Växjö), Sweden*

**16.00**

**OP-II-7**

**Dubrovskiy A., Dolmanov V., Kuznetsov S.**

CATALYTIC SYSTEMS FOR CLEAN HYDROGEN PRODUCTION ON THE BASE OF MOLYBDENUM CARBIDE

*Tananaev Institute of Chemistry, Kola Science Centre RAS (Apatity), Russia*

**16.20**

**OP-II-8**

**Dubinin Y., Simonov A.D., Yazykov N.A., Yakovlev V.A., Parmon V.N.**

COMBUSTION OF SEWAGE SLUDGE INCLUDING MUNICIPAL WASTE IN FLUIDIZED BED OF CATALYST

*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*

**16.40 – 17.00**

**Coffee**

**17.00**

**Guide Excursion around Lund**



July 23, Tuesday

## PLENARY LECTURES

### Auditorium HALL

**Chairperson – Professor Boris Kuznetsov, Institute of Chemistry and Chemical Technology SB RAS, Russia**

9.00

**PL-3**

**Professor Tapio Salmi**

APPLICATION OF THE PRINCIPLES OF CHEMICAL REACTION ENGINEERING ON THE LOW-TEMPERATURE TRANSFORMATION OF BIOMASS

*Åbo Akademi University (Turku), Finland*

10.00

**PL-4**

**Dr. Juan Carlos Serrano-Ruiz**

FROM BIOMASS TO ADVANCED BIOFUELS: ALTERNATIVES TO BIODIESEL AND BIOETHANOL VIA CATALYTIC CONVERSION

*Abengoa Research (Seville), Spain*

## KEY-NOTE LECTURE

11.00

**KN-2**

**Meneghetti M.R., Brito Y., de A. Fragoso D., Mendes P., Meneghetti S.P.**

SIMULTANEOUS CONVERSION OF TRIACYLGLYCERIDES AND FATTY ACIDS INTO FATTY ACID METHYL ESTERS USING ORGANOMETALLIC CATALYSTS

*Federal University of Alagoas (Maceió), Brazil*

**11.30 – 12.00**

**Coffee**

## PLENARY LECTURE

**Chairperson – Professor Sergey Varfolomeev, Emanuel Institute of Biochemical Physics RAS, Russia**

12.00

**PL-5**

**Professor Vladislav Sadykov**

STRUCTURED NANOCOMPOSITE CATALYSTS OF BIOFUELS TRANSFORMATION INTO SYNGAS AND HYDROGEN: DESIGN AND PERFORMANCE

*Borekov Institute of Catalysis SB RAS (Novosibirsk), Russia*

*Novosibirsk State University (Novosibirsk), Russia*

**13.00-15.00**

**Lunch**



# ORAL PRESENTATIONS SECTION I

Catalytic processes for valuable production from biomass

## Auditorium HALL

**Chairperson – Chairperson – Professor Mario Roberto Meneghetti, Federal University of Alagoas (Maceió), Brazil, Brazil**

15.00

OP-I-9

**Tudorache M., Nae A., Negoii A., Protesescu L., Coman S., Parvulescu V.**  
RENEWABLE GLYCEROL IN BIOREFINERY – BIOCATALYTIC SYNTHESIS OF GLYCEROL CARBONATE

*University of Bucharest (Bucharest), Romania*

15.20

OP-I-10

**Ilolov A.M.<sup>1</sup>, Tretiyakov V.F.<sup>1</sup>, Talyshinsky R.<sup>1</sup>, Tshiswaka M.<sup>2</sup>, Ezinkwo G.<sup>2</sup>, Sedghe Rouhi B.<sup>3</sup>, Mahamat A.T.<sup>2</sup>**

ONE - STEP CATALYTIC CONVERSION OF BIO – ETHANOL INTO 1, 3 – BUTADIENE IN THE PRESENCE OF AN INITIATOR

<sup>1</sup>*A.V. Topchiev Institute of Petrochemical Synthesis RAS (Moscow), Russia*

<sup>2</sup>*M.V. Lomonosov Moscow State Academy of Fine Chemical Technology (Moscow), Russia*

<sup>3</sup>*Gubkin Russian State University of Oil and Gas (Moscow), Russia*

15.40

OP-I-11

**Khalilova S., Gasanov A., Azizov A., Abdullayeva N.**

NOVEL CATALYSTS FOR REFINING OF UNSATURATED ACIDS OF VEGETABLE OILS TO HIGH INTERNAL OLEFINS

*Institute of Petrochemical Processes of Azerbaijan NAS (Baku), Azerbaijan*

16.00

OP-I-12

**Ojha A.<sup>1</sup>, Zmat A.<sup>2</sup>, Al-Dahhan M.<sup>1</sup>**

STUDY OF LOCAL GAS HOLDUP, AND SPECIFIC INTERFACIAL AREA IN A SPLIT-COLUMN AIRLIFT BIOREACTOR USING SOPHISTICATED 4-POINT OPTICAL PROBE FOR CULTURING MICROALGAE/CYANOBACTERIA

<sup>1</sup>*Missouri University of Science and Technology (Rolla), USA*

<sup>2</sup>*Al-Qadisiyah University (Ad Diwaniyah), Iraq*

16.20

OP-I-13

**Kasaikina O.T.<sup>1</sup>, Lesin V.<sup>2</sup>, Pisarenko L.<sup>1</sup>**

COLLOIDAL CATALYSTS ON THE BASE OF IRON(3+) OXIDES FOR OXIDATIVE TREATMENT OF BIOMASS

<sup>1</sup>*N.N. Semenov Institute of Chemical Physics RAS (Moscow), Russia*

<sup>2</sup>*Oil and Gas Scientific Institute RAS (Moscow), Russia*

**16.40 – 17.00**

**Coffee**

**POSTER SESSION**

## ORAL PRESENTATIONS SECTION III

### Catalyst application for clean syn-gas and clean hydrogen production

#### Hornsbergssalen HALL

*Chairperson – Professor Christian Hulteberg, Lund University, Sweden*

15.00

OP-III-1

**Bulushev D.A., Jia L., Beloshapkin S., Ross J.R.**

BIOMASS DERIVED FORMIC ACID FOR CLEAN HYDROGEN PRODUCTION VIA  
DECOMPOSITION OVER K-DOPED Pd CATALYSTS

*University of Limerick (Limerick), Ireland*

15.20

OP-III-2

**Itkulova S.<sup>1,2</sup>, Zakumbaeva G.<sup>1</sup>, Nabidollayev S.<sup>1,2</sup>, Mukazhanova A.<sup>1,2</sup>,  
Yermaganbetova A.<sup>1</sup>, Nurmakanov Y.<sup>1</sup>**

SYNGAS PRODUCTION BY BIOGAS REFORMING OVER THE Co-BASED  
MULTICOMPONENT CATALYSTS

<sup>1</sup>*D.V. Sokolsky Institute of Organic Catalysis and Electrochemistry (Almaty), Kazakhstan*

<sup>2</sup>*Kazakh-British Technical University (Almaty), Kazakhstan*

15.40

OP-III-3

**Ciftci A., Eren S., Zhu T., Ligthart M., Hensen E.**

ENHANCED ACTIVITY OF PLATINUM-BASED BIMETALLIC CATALYSTS IN AQUEOUS  
PHASE REFORMING OF GLYCEROL

*Eindhoven University of Technology (Eindhoven), The Netherlands*

16.00

OP-III-4

**Trane-Restrup R.<sup>1</sup>, Jensen A.D.<sup>1</sup>, Resasco D.<sup>2</sup>**

STEAM REFORMING OF BIO-OIL MODEL COMPOUNDS

<sup>1</sup>*Technical University of Denmark, Department of Chemical and Biochemical Engineering  
(Kgs. Lyngby), Denmark*

<sup>2</sup>*University of Oklahoma, School of Chemical, Biological, and Materials Engineering  
(Oklahoma), USA*

16.20

OP-III-5

**Magrini K., Jablonski W., Yung M., Olstad J., Parent Y., Deutch S.**

PILOT SCALE DEMONSTRATION OF BIOMASS SYNGAS CLEANING VIA CATALYTIC  
REFORMING

*NREL (Golden), USA*

**16.40 – 17.00**

**Coffee**

**POSTER SESSION**

July 24, Thursday

## PLENARY LECTURES

### Auditorium HALL

**Chairperson – Chairperson – Professor Vladislav Sadykov, Boreskov Institute of Catalysis SB RAS, Russia**

9.00

**PL-6**

**Professor Simoni Plentz Meneghetti, Meneghetti M.R.**

CATALYSIS IN BIOMASS VALORIZATION: EXAMPLES IN OLEOCHEMISTRY AND CELLULOSE CONVERSION

*Federal University of Alagoas (Maceió), Brazil*

10.00

**PL-7**

**Professor Erik Heeres**

BIOFUELS AND BIOBASED CHEMICALS: THE QUEST FOR EFFICIENT CATALYSTS

*University of Groningen, Department of Chemical Engineering (Groningen), The Netherlands*

## KEY-NOTE LECTURES

11.00

**KN-3**

**Frusteri F., Cannilla C., Bonura G.**

CATALYTIC PRODUCTION OF OXYGENATED ADDITIVES BY GLYCEROL ETHERIFICATION

*CNR-ITAE “Nicola Giordano” (Messina), Italy*

**11.30 – 12.00**

**Coffee**

**Chairperson – Professor Tapio Salmi, Åbo Akademi University, Finland**

12.00

**KN-4**

**Kuznetsov B.N., Sharypov V.I., Kuznetsova S.A., Baryshnikov S.V., Garyntseva N.V.**

HETEROGENEOUS CATALYSIS METHODS FOR LIGNIN VALORIZATION INTO CHEMICALS AND ACTIVE CARBONS

*Institute of Chemistry and Chemical Technology of SB RAS (Krasnoyarsk), Russia*

12.30

**KN-5**

**Subramanian M.**

NEW GENETIC INSIGHTS TO CONSIDER COFFEE WASTE AS A FEEDSTOCK FOR FUEL, FEED AND CHEMICALS

*Center for Biocatalysis & Bioprocessing (CBB) (Coralville, Iowa), USA*

*University of Iowa, Chemical & Biochemical Engineering (Iowa city, Iowa), USA*

**13.00-15.00**

**Lunch**

**ORAL PRESENTATIONS**  
**SECTION IV**  
**Catalytic Processes in Oleochemistry**  
**Auditorium HALL**

**Chairperson – Professor Parasuraman Selvam, Indian Institute of Technology, India**

**15.00**

**OP-IV-1**

**Navajas A., Reyero I., Arzamendi G., Gandía L.**

SIMULTANEOUS ESTERIFICATION AND TRANSESTERIFICATION FOR BIODIESEL SYNTHESIS WITH MOLYBDENUM OXIDE CATALYSTS

*Universidad Pública de Navarra (Pamplona), Spain*

**15.20**

**OP-IV-2**

**Pathirana H., Pannilawithana N.**

BIODIESEL FROM PALM OLEIN OIL BY HETEROGENEOUS CATALYSTS

*University of Ruhuna (Ruhuna), Sri Lanka*

**15.40**

**OP-IV-3**

**Robin T., Lea-Langton A., Jones J., Ross A.**

CATALYTIC HYDROTHERMAL PROCESSING OF VEGETABLE OILS USING METAL EXCHANGED ZEOLITE

*University of Leeds (Leeds), United Kingdom*

**16.00**

**OP-IV-4**

**Palanisamy S., Mughal A., Gevert B.**

CATALYTIC HYDROPROCESSING OF RAPESEED OIL – REACTION MECHANISMS AND RATE DETERMINATION

*Chalmers University of Technology (Gothenburg), Sweden*

**16.20**

**OP-IV-5**

**Yakovlev V., Selischeva S.A., Kukushkin R.G., Rodina V.O., Parmon V.N.**

CATALYTIC CONVERSION OF THE PLANT LIPIDS TO BIOFUELS

*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*

## ORAL PRESENTATIONS SECTION V

Catalytic approaches for the processing of pyrolysis biomass products

### Hornsbergssalen HALL

**Chairperson – Professor Erik Heeres, University of Groningen, The Netherlands**

**15.00**

**OP-V-1**

**Kalogiannis K.G.<sup>1</sup>, Stephanidis S.D.<sup>1,2</sup>, Lappas A.<sup>1</sup>**

PRODUCTION OF HIGH VALUE CHEMICALS AND BIOFUELS BY CATALYTIC  
PYROLYSIS OF BIOMASS/LIGNIN MIXTURES

<sup>1</sup>*Chemical Process and Energy Resources Institute(CPERI)/Center for Research and  
Technology Hellas (CERTH) (Thessaloniki), Greece*

<sup>2</sup>*University of Western Macedonia (Kozani), Greece*

**15.20**

**OP-V-2**

**Triantafyllidis K.S.<sup>1,2</sup>, Karakoulia S.A.<sup>2</sup>, Kalogiannis K.G.<sup>2</sup>, Iliopoulou E.F.<sup>2</sup>, Lappas A.A.<sup>2</sup>**

IN SITU UPGRADING OF BIOMASS FAST PYROLYSIS OIL WITH ACIDIC AND BASIC  
CATALYSTS

<sup>1</sup>*Aristotle University of Thessaloniki (Thessaloniki), Greece*

<sup>2</sup>*Chemical Process & Energy Resources Institute, Centre for Research and Technology-  
Hellas (CPERI/CERTH), (Thessaloniki), Greece*

**15.40**

**16.00**

**OP-V-4**

**Mortensen P.M.<sup>1</sup>, Grunwaldt J.<sup>2</sup>, Jensen P.A.<sup>1</sup>, Jensen A.D.<sup>1</sup>**

STABILITY AND RESISTANCE OF NICKEL-BASED CATALYSTS FOR  
HYDRODEOXYGENATION

<sup>1</sup>*Technical University of Denmark, Department of Chemical and Biochemical Engineering  
(Kgs. Lyngby), Denmark*

<sup>2</sup>*University of Karlsruhe (TH), Karlsruhe Institute of Technology (KIT), Institute for Chemical  
Technology and Polymer Chemistry (Karlsruhe), Germany*

**16.20**

**OP-V-5**

**Smirnov A.A.<sup>1</sup>, Khromova S.<sup>1,2</sup>, Reshetnikov S.<sup>1</sup>, Bulavchenko O.<sup>1,2</sup>, Kaichev V.<sup>1,2</sup>,  
Saraev A.<sup>1</sup>, Yakovlev V.<sup>1,2</sup>**

CHARACTERIZATION AND CATALYTIC PROPERTIES OF HIGH-LOADED Ni-Cu  
CATALYSTS: THE EFFECT OF Ni/Cu RATIO ON ACTIVITY AND SELECTIVITY IN  
ANISOLE HDO

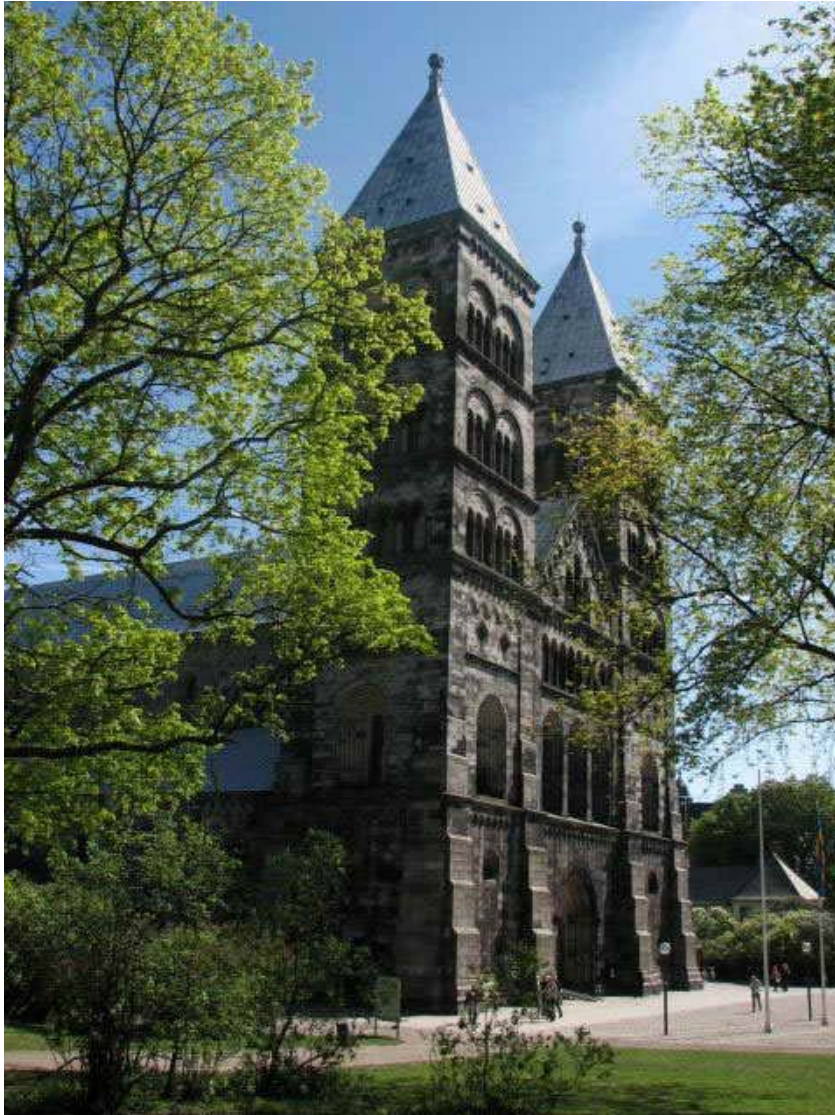
<sup>1</sup>*Boreshkov Institute of Catalysis SB RAS (Novosibirsk), Russia*

<sup>2</sup>*Novosibirsk State University (Novosibirsk), Russia*

**17.00**

**Closing**

**Coffee**



## POSTER SESSION

- PP-1. Abas N., Haliza A.A., Zainab I., Hazimah A.H.**  
SOLID BASE CATALYST: SYNTHESIS OF GLYCERYL CARBONATE BY  
TRANSESTERIFICATION  
*Malaysian Palm Oil Board (Selangor), Malaysia*
- PP-2. Akoto O.**  
JATROPHA PERFECT FEEDSTOCK FOR RURAL ELECTRIFICATION  
*Jatropha Africa Ltd (Jatropha), Ghana*
- PP-3. Ates F., Akan G., Erginel N.**  
PRESSURIZED PYROLYSIS OF BIOMASS USING MCM-41 CATALYST  
*Anadolu University (Eskişehir), Turkey*
- PP-4. Barrientos J., Boutonnet M., Järås S.**  
A COMPARISON OF COBALT- AND IRON-BASED FISCHER-TROPSCH CATALYSTS  
FOR BIOMASS-DERIVED DIESEL AND SNG COPRODUCTION  
*KTH - Royal Institute of Technology, School of Chemical Science and Engineering  
(Stockholm), Sweden*
- PP-5. Buturca R.<sup>1</sup>, Gasol C.<sup>2,3</sup>, Scarpete D.<sup>1</sup>, Gabarrell X.<sup>2,3</sup>**  
COMPARATIVE LCA STUDY FOR BIODIESEL PRODUCTION IN ROMANIA AND SPAIN  
<sup>1</sup>*Dunarea de Jos Univeristy (Galati), Romania*  
<sup>2</sup>*Universitat Autònoma de Barcelona, Department of Chemical Engineering (XRB),  
(Barcelona), Spain*  
<sup>3</sup>*Inedit Innovació S.L. Parc de Recerca de la Universitat Autònoma de Barcelona  
(Barcelona), Spain*
- PP-6. Drago C.<sup>1</sup>, Liotta L.F.<sup>2</sup>, La Parola V.<sup>2</sup>, Testa M.L.<sup>2</sup>, Nicolosi G.<sup>1</sup>**  
ONE-POT MICROWAVE ASSISTED CATALYTIC TRANSFORMATION OF  
VEGETABLE OIL INTO GLYCEROL-FREE BIODIESEL  
<sup>1</sup>*Istituto di Chimica Biomolecolare, CNR (Catania), Italy*  
<sup>2</sup>*Istituto per lo Studio dei Materiali Nanostrutturati, CNR (Palermo), Italy*
- PP-7. Frolova S., Kuvshinova L., Ryazanov M.<sup>†</sup>**  
GETTING IONIZABLE PRODUCTS ON THE BASIS OF BIOPOLYMERS BY THE  
INFLUENCE OF CATALYTIC REAGENTS  
*Institute of Chemistry of Komi Scientific Centre of the Ural Branch of the Russian  
Academy of Sciences, Syktyvkar, Russia*
- PP-8. Kraleva E., Schneider M., Bentrup U., Sokolov S., Ehrich H.**  
SUPPORTED Co AND Ni CATALYSTS FOR HYDROGEN GENERATION IN PARTIAL  
OXIDATION OF BIOETHANOL  
*Leibniz Institute for Catalysis (Rostock), Germany*
- PP-9. Koklin A.E.<sup>1</sup>, Bogdan V.I.<sup>1,2</sup>**  
TRANSFORMATION OF GLUCOSE ON Pt/C UNDER CONTINUOUS-FLOW  
CONDITIONS  
<sup>1</sup>*N.D. Zelinsky Institute of Organic Chemistry RAS (Moscow), Russia*  
<sup>2</sup>*Lomonosov Moscow State University, Chemical Department (Moscow), Russia*
- PP-10. Kukueva V.**  
THEORETICAL RESEARCH OF PROMOTION SOME COMBUSTION REACTIONS  
*Academy of Fire Safety named after Chernobyl Heroes (Cherkassy), Ukraine*

- PP-11. Kuznetsov S.<sup>1</sup>, Koltsov N.<sup>1</sup>, Litvinov A.<sup>2</sup>**  
 BIOLOGICALLY DECOMPOSING LUBRICANTS ON THE BASE OF OXYETHYLATED GLYCERIDES  
<sup>1</sup>*Chuvash State University (Cheboksary), Russia*  
<sup>2</sup>*"Instrumental and mechanical plant" Eurostar" Ltd (Cheboksary), Russia*
- PP-12. Masgidi M.A.**  
 CATALYSIS PROCESSES IN BIOMASS GASIFICATION FOR FUTURE GENERATION DEMANDABLE BIOFUELS IN EGYPT  
*Union For change (CAIRO), Egypt*
- PP-13. Maximov A.L., Samoylov V., Ramazanov D., Nekhaev A.**  
 HETEROGENEOUSLY CATALYZED CONVERSION OF BIOFEED COMPONENTS: A STEP TOWARDS CARBON-NEUTRAL FUELS  
*A.V. Topchiev Institute of Petrochemical Synthesis RAS (Moscow), Russia*
- PP-14. Pai Z.P., Kochubey D.I., Parmon V.N.**  
 ENVIRONMENTALLY BENIGN CATALYTIC PRODUCTION OF FINE CHEMICALS  
*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*
- PP-15. Reyero I., Navajas A., Arzamendi G., Gandía L.**  
 BIODIESEL FROM HETEROGENEOUSLY ACID-CATALYZED ETHANOLYSIS OF SUNFLOWER OIL  
*Universidad Pública de Navarra (Pamplona), Spain*
- PP-16. Saeed M.<sup>1</sup>, Ilyas M.<sup>2</sup>, Siddique M.<sup>2</sup>**  
 LIQUID PHASE OXIDATION OF BENZYL ALCOHOL CATALYZED BY MANGANESE OXIDE: KINETIC ANALYSIS  
<sup>1</sup>*Department of Chemistry (Faisalabad), Pakistan*  
<sup>2</sup>*National Centre of Excellence in Physical Chemistry, University of Peshawar (Peshawar), Pakistan*
- PP-17. Salgansky E.A., Tsvetkov M.V., Kislov V.M.**  
 CATALYTIC BIOMASS GASIFICATION USING THE METHOD OF FILTRATION COMBUSTION WITH SUPERADIABATIC HEATING  
*Institute of Problems of Chemical Physics RAS (Chernogolovka), Russia*
- PP-18. Stepan E.<sup>1</sup>, Velea S.<sup>1</sup>, Blajan O.<sup>2</sup>, Crucean A.<sup>3</sup>, Ilie L.<sup>1</sup>, Vasilievici G.<sup>1</sup>, Oprescu E.E.<sup>1</sup>, Radu A.<sup>1</sup>**  
 SYNTHETIC JET FUEL FROM MICROALGAL BIOMASS  
<sup>1</sup>*National Research and Development Institute for Chemistry and Petrochemistry ICECHIM (Bucharest), Romania*  
<sup>2</sup>*Research Institute of Organic Auxiliary Products Medias (Medias), Romania*  
<sup>3</sup>*CHIMIGAZ Ltd (Medias), Romania*
- PP-19. Suarez Paris R., Andersson R., Boutonnet M., Järås S.**  
 K-Ni-MoS<sub>2</sub> CATALYST PREPARED BY MICROEMULSION FOR MIXED ALCOHOL SYNTHESIS  
*Royal Institute of Technology (KTH) (Stockholm), Sweden*
- PP-20. Tungatarova S.A., Yergaziyeva G.Y., Shaizadauly E.**  
 COPPER BASED CATALYSTS FOR RECEIPT OF ETHYLENE FROM BIOETHANOL  
*D.V. Sokolsky Institute of Organic Catalysis and Electrochemistry (Almaty), Kazakhstan*
- PP-21. Zhizhina E.G., Odyakov V., Gogin L.**  
 PREPARATION OF THE CATALYST FOR DELIGNIFICATION OF WOOD  
*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*



## VIRTUAL PARTICIPATION

**PP-22. Bachurikhin A.L.**

ELECTROMAGNETIC REACTOR OF WATER TREATING FROM OILS AND HYDROCARBONS

*OOO "EcoBioCatalis" (Moscow), Russia*

**PP-23. Bely V.A., Udoratina E.V., Patov S.A.**

THE STUDY OF THE EFFECT OF INORGANIC CATALYSTS ON THE KINETICS OF THE LIGNIN PYROLYSIS

*Institute of Chemistry of Komi SC UB RAS (Syktyvkar), Russia*

**PP-24. Efimov M.N., Mironova E., Ermilova M., Orekhova N., Zemtsov L., Karpacheva G.**

METAL NANOPARTICLES SUPPORTED BY NANODIAMONDS AS NOVEL CATALYSTS FOR STEAM ETHANOL REFORMING REACTION

*A.V. Topchiev Institute of Petrochemical Synthesis RAS (Moscow), Russia*

**PP-25. Lapin N.V., Bezhok V.**

LOW-TEMPERATURE CONVERSION OF ETHANOL OVER BINARY NICKEL-COPPER CATALYST

*Institute of Microelectronic Technology and High-Purity Materials RAS (Chernogolovka, Moscow region), Russia*

**PP-26. Mammadova T., Hasankhanova N., Teyubov X., Askerova E., Abbasov V.**

THERMOCHEMICAL CONVERSION OF COTTONSEED OIL WITH USE OF NATURAL NANOTUBES

*Y.H. Mammadaliyev Institute of Petrochemical Processes, ANAS (Baku), Azerbaijan*

**PP-27. Naeemy A.**

A NOVEL ROUTE APPROACH TO INVESTIGATION OF ELECTROCATALYTIC BEHAVIOR OF Ni(OH)<sub>2</sub>/NiOOH MODIFIED GLASSY CARBON ELECTRODE WITH ANIONIC SURFACTANT IN ALKALINE SOLUTION

*Tehran Medical Sciences University (Tehran), Iran*

**PP-28. Prokopev E.P., Grafutin V.**

POSSIBLE DEVELOPMENT OF METHODS OF POSITRON ANNIHILATION SPECTROSCOPY FOR RESEARCH OF NANOPHENOMENA TO OIL AND GAS INDUSTRY

*A.I. Alikhanov Institute for Theoretical and Experimental Physics (Moscow), Russia*

**PP-29. Varlamova E., Chernyshev D., Suslov A., Staroverov D.,**

**Kozlovskiy R., Suchkov Y., Shvets V.**

STUDY OF CATALYTIC SYSTEMS FOR METHYL LACTATE DEHYDRATION

*D. Mendeleev University of Chemical Technology of Russia (Moscow), Russia*

**PP-30. Udoratina E.V.<sup>1</sup>, Sherbakova T.P.<sup>1</sup>, Kuchin A.V.<sup>1</sup>, Budaeva V.V.<sup>2</sup>, Skiba E.A.<sup>2</sup>, Sakovich G.V.<sup>2</sup>**

CHEMICAL, MECHANOCHEMICAL AND ENZYMATIC DESTRUCTIONS OF LIGNOCELLULOSE TO OBTAIN VALUABLE PRODUCTS

<sup>1</sup>*Institute of Chemistry of Komi Science Center of the Ural Branch RAS (Syktyvkar), Russia*

<sup>2</sup>*Institute for Problems of Chemical and Energetic Technologies SB RAS (Biysk), Russia*

## LATE PRESENTATIONS

- PP-31. San José María J., Alvarez Sonia, García Iris**  
PERFORMANCE OF SPOUTED BED GASIFICATOR OF BIOMASS WASTES  
FROM PAPER INDUSTRY  
*Universidad del País Vasco UPV/EHU; (Bilbao), Spain*
- PP-32. Selishcheva S., Kukushkin R., Yakovlev V.**  
KINETIC INVESTIGATION OF PLANT OILS HYDROCRACKING WITH HIGH  
CETANE BIOFUEL PRODUCTION  
*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*
- PP-33. Kukushkin R., Sorokina K.N., Selishcheva S.A., Piligaev A.V., Yakovlev V.A.**  
INVESTIGATION OF MICROALGAE CATALYTIC PROCESSING  
*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*
- PP-34. Khromova S., Andrey A. Smirnov A., Reshetnikov R., Yakovlev V.**  
ANISOLE HYDRODEOXYGENATION OVER Ni-Cu BIMETALLIC CATALYSTS:  
EFFECT OF Ni/Cu RATIO ON SELECTIVITY  
*Boreskov Institute of Catalysis SB RAS (Novosibirsk), Russia*