

# IV Scientific-Technological Symposium



**CATALYTIC  
HYDROPROCESSING  
IN OIL REFINING**

**APRIL 26 - 30  
2021 / ONLINE**

*Boriskov Institute of Catalysis (Novosibirsk, Russia)  
Chemical Process and Energy Resources Institute – CPERI (Thessaloniki, Greece)  
PJSC Gazprom Neft (St. Petersburg, Russia)*

**IV Scientific-Technological Symposium  
CATALYTIC HYDROPROCESSING IN OIL REFINING  
STS HydroCat  
April 26 – 30, 2021  
ONLINE**

## **SCIENTIFIC PROGRAM**

*Novosibirsk, 2021*

## Timetable

April 26, Monday		April 27, Tuesday		April 28, Wednesday		April 29, Friday	
<b>Time Zone UTC +3</b> <i>Thessaloniki, Greece</i> <i>St. Petersburg, Russia</i>							
		05.00-05.15	OP-8 Pacheco-Jimenez				
		05.15-05.30	OP-9 Alvarez-Majmutov				
		05.30-05.45	OP-10 Diaz de Leon				
		05.45-06.00	OP-11 Saiko				
		06.00-06.15	OP-12 Xuanjun Ai				
		06.15-06.30	OP-13 Vatutina				
		06.30-07.00	<i>Coffee break</i>				
		07.00-07.15	OP-14 Danilova				
		07.15-07.30	OP-15 Tregubenko				
		07.30-07.45	OP-16 Shamanaev	07.30-07.45	OP-29 Belskaya		
		07.45-08.00	OP-17 Belopukhov	07.45-08.00	OP-30 Bogomolova		
		08.00-08.15	OP-18 Golubev	08.00-08.15	OP-31 Nazarova		
08.15-08.30	OP-19 Belinskaya	08.15-08.30	OP-32 Porsin				
08.30-10.00	Lunch	08.30-10.00	<i>Lunch</i>				
11.00-11.15	OPENING					10.00-10.45	PL-3 Lemonidou
		10.00-10.45	PL-1 Schwieger	10.00-10.45	PL-2 Rana	10.45-11.00	OP-36 Naranov
		10.45-11.15	KL-2 Thybaut	10.45-11.15	KL-3 Danilevich	11.00-11.15	OP-37 Romero
		11.15-11.30	OP-20 Karakoulia	11.15-11.30	OP-33 Snytnikov	11.15-11.30	OP-38 Glotov
11.15-11.45	KL-1 Bezergianni	11.30-11.45	OP-21 Kokliukhin	11.30-11.45	OP-34 Krivtcova	11.30-11.45	OP-39 Dimitriadis
11.45-12.00	OP-1 Nadeina	11.45-12.00	OP-22 Palos	11.45-12.00	OP-35 Potapenko	11.45-12.00	OP-40 Chuzlov
12.00-12.30	<i>Coffee break</i>	12.00-12.30	<i>Coffee break</i>	12.00-12.30	<i>Coffee break</i>	12.00-12.30	<i>Coffee break</i>
12.30-12.45	OP-2 Orlović	12.30-12.45	OP-23 Pernaletė	12.30-14.00	Poster Session flash-poster presentations	12.30-12.45	OP-41 Stepacheva
12.45-13.00	OP-3 Kazakov	12.45-13.00	OP-24 Stepanova			12.45-13.00	OP-42 Matveeva
13.00-13.15	OP-4 Shkurenok	13.00-13.15	OP-25 Margellou			13.00-13.15	OP-43 Malbakhova
13.15-13.30	OP-5 Yashnik	13.15-13.30	OP-26 Simakova				
13.30-13.45	OP-6 Devers	13.30-13.45	OP-27 Zagoruiko				
13.45-14.00	OP-7 Ntagkonikou	13.45-14.00	OP-28 Pimerzin			13.15-13.30	CLOSING

PL – Plenary lecture; KL – Keynote lecture; OP – Oral presentation

## April 26, Monday

**11.00 – 11.15**

**Opening Ceremony**

**Keynote Lecture**

**11.15 – 11.45**

**KL-1**

**Dr. Stella Bezergianni**

**CATALYTIC HYDROPROCESSING: AN EFFECTIVE MODE FOR DIRECT FUELS DECARBONIZATION**

*Centre for Research & Technology Hellas / CERTH*

*Chemical Process & Energy Resources Institute / CPERI, Greece*

**Oral Presentation**

**11.45 – 12.00**

**OP-1**

**Nadeina K.A.**<sup>1</sup>, Danilevich V.V.<sup>1</sup>, Kazakov M.O.<sup>1</sup>, Romanova T.S.<sup>1</sup>, Gabrienko A.A.<sup>1</sup>, Pakharukova V.A.<sup>1</sup>, Danilova I.G.<sup>1</sup>, Nikolaeva O.A.<sup>1</sup>, Gerasimov E.Yu.<sup>1</sup>, Kondrashev D.O.<sup>2</sup>, Kleimenov A.V.<sup>2</sup>, Klimov O.V.<sup>1</sup>, Noskov A.S.<sup>1</sup>

**INFLUENCE OF Si DOPING TO HYDROTREATING CATALYSTS OF FCC FEED PRETREATMENT**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

<sup>2</sup>*PJSC Gazprom neft, Saint Petersburg, Russia*

**12.00 – 12.30 – Coffee break**

**Oral Presentations**

**12.30 – 12.45**

**OP-2**

Glišić S.B.<sup>1</sup>, Prokić-Vidojević D.<sup>2</sup>, **Orlović A.M.**<sup>1</sup>

**INFLUENCE OF THE TRANSITION METAL AND CATALYST DRYING PROCEDURE ON THE CATALYTIC PERFORMANCE OF Re/Pd, Co/Mo AND COMMERCIAL CATALYSTS SUPPORTED ON HEXAGONAL MESOPOROUS SILICAS DOPED WITH Ti-IONS DURING THE HDS OF DIBENZOTHIOPHENE AND 4,6-DIMETHYLDIBENZOTHIOPHENE**

<sup>1</sup>*University of Belgrade, Belgrade, Serbia*

<sup>2</sup>*Military Technical Institute (VTI), Belgrade, Serbia*

**12.45 – 13.00**

**OP-3**

**Kazakov M.O.**<sup>1</sup>, Revyakin M.E.<sup>1</sup>, Nadeina K.A.<sup>1</sup>, Vatutina Yu.V.<sup>1</sup>, Kondrashev D.O.<sup>2</sup>, Golovachev V.A.<sup>2</sup>, Kleimenov A.V.<sup>2</sup>, Vedernikov O.S.<sup>2</sup>, Klimov O.V.<sup>1</sup>, Noskov A.S.<sup>1</sup>

**TUNING METAL-ACID PROPERTIES OF ZEOLITE HYDROCRACKING CATALYSTS BY SUPPORTING NiMo WITH IMPREGNATION SOLUTIONS OF DIFFERENT COMPOSITION**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

<sup>2</sup>*PJSC Gazprom neft, St Petersburg, Russia*

**13.00 – 13.15**

**OP-4**

**Shkurenok V.A.**<sup>1</sup>, Yablokova S.S.<sup>1</sup>, Smolikov M.D.<sup>1</sup>, Kir'yanov D.I.<sup>1</sup>, Belyi A.S.<sup>1</sup>, Kondrashev D.O.<sup>2</sup>, Kleimenov A.V.<sup>2</sup>

**NEW DIRECTION IN THE HYDROPROCESSING OF GASOLINE FRACTIONS: INTEGRATION OF C<sub>5</sub>-C<sub>6</sub> AND C<sub>7</sub>-PARAFFIN HYDROCARBONS ISOMERIZATION PROCESSES**

<sup>1</sup>Center of New Chemical Technologies BIC, Omsk, Russia

<sup>2</sup>PJSC Gazprom neft, Saint Petersburg, Russia

**13.15 – 13.30**

**OP-5**

**Yashnik S.A.**<sup>1</sup>, Ismailov E.G.<sup>2</sup>, Ismagilov Z.R.<sup>1</sup>

**EFFECT OF BENTONITE ADDITION ON PROPERTIES OF NANOSTRUCTURED PtPd-ZEOLITE HYDRODESULFURIZATION CATALYST**

<sup>1</sup>Boreskov Institute of Catalysis, Novosibirsk, Russia

<sup>2</sup>Institute of Petrochemical Processes of ANAS, Baku, Azerbaijan

**13.30 – 13.45**

**OP-6**

**Devers E.**<sup>1</sup>, Lesage C.<sup>1,2</sup>, Legens C.<sup>1</sup>, Briois V.<sup>2</sup>

**NEW METHODOLOGY COUPLING RAMAN AND XAS FOR THE SPECIATION OF ADDITIVATED Mo-BASED HDS CATALYSTS AND CHARACTERIZATION BY QUICK-XAS OPERANDO OF THEIR LIQUID SULFIDATION**

<sup>1</sup>IFP Energies nouvelles, Solaize, France

<sup>2</sup>Synchrotron SOLEIL L'orme des Merisiers, Gif-sur-Yvette Cedex, France

**13.45 – 14.00**

**OP-7**

**Ntagkonikou V.**<sup>1,2</sup>, Bezergianni S.<sup>1</sup>, Karonis D.<sup>2</sup>

**AN ALTERNATIVE APPROACH FOR LCO UPGRADING**

<sup>1</sup>Chemical Process and Energy sources Institute-CPERI, Centre of Research and Technology Hellas-CERTH, Thessaloniki, Greece

<sup>2</sup>National Technical University of Athens, Zografou Campus, Athens, Greece

## April 27, Tuesday

### Oral Presentations

05.00 – 05.15

OP-8

**Pacheco-Jiménez H.O.**<sup>1,2</sup>, Santes V.<sup>1</sup>, Sotelo-Boyás R.<sup>2</sup>, Santolalla-Vargas C.E.<sup>1</sup>, Gonzalez-Alatriste J.E.<sup>1</sup>

**HYBRID DIESEL PRODUCTION VIA CATALYTIC CO-HYDROPROCESSING OF BLENDS GASOIL-WASTE COOKING OIL**

<sup>1</sup>*Departamento de Biociencias e Ingenieria, Centro Interdisciplinario de Investigaciones y Estudios sobre Medio Ambiente y Desarrollo (CIEMAD), Instituto Politecnico Nacional, Mexico City, Mexico*

<sup>2</sup>*Departamento de Ingenieria Quimica Petrolera, Escuela Superior de Ingenieria Quimica e Industrias Extractivas (ESIQIE), Instituto Politecnico Nacional, Zacatenco, Mexico City, Mexico*

05.15 – 05.30

OP-9

**Alvarez-Majmutov A.**, Sandeep Badoga, Tingyong Xing, Jinwen Chen

**PRODUCING LOW CARBON FUELS BY Co-HYDROCRACKING HTL BIOCRUDE WITH VACUUM GAS OIL**

*Natural Resources Canada, CanmetENERGY Devon, Canada*

05.30 – 05.45

OP-10

Quintana-Gamboa S., Richards-Figueroa Z., Torres-Otañez G., S. Fuentes-Moyado,

**Díaz de León J.N.**

**NiMoS NANOCUBES FOR HYDRODESULFURIZATION OF LIGHT HYDROCARBONS**

*Universidad Nacional Autónoma de México, Nanoscience and Nanotechnology Center, Ensenada B.C., México*

05.45 – 06.00

OP-11

**Saiko A.V.**<sup>1</sup>, Potapenko O.V.<sup>2</sup>, Nadeina K.A.<sup>1</sup>, Porotikova O.V.<sup>2</sup>, Sorokina T.P.<sup>2</sup>, Doronin V.P.<sup>2</sup>, Kazakov M.O.<sup>1</sup>, Klimov O.V.<sup>1</sup>, Kondrashev D.O.<sup>3</sup>, Kleimenov A.V.<sup>3</sup>, Noskov A.S.<sup>1</sup>

**INFLUENCE OF NITROGEN CONTAINING COMPOUNDS OF DIFFERENT NATURE IN HYDROTREATED VGO ON PRODUCT COMPOSITION OF FCC PROCESS FOR LIGHT OLEFINS PRODUCTION**

<sup>1</sup>*Borekov Institute of Catalysis, Novosibirsk, Russia*

<sup>2</sup>*Center of New Chemical Technologies BIC, Omsk, Russia*

<sup>3</sup>*PJSC Gazprom нефт, Saint Petersburg, Russia*

06.00 – 06.15

OP-12

**Ai X.**<sup>1</sup>, Chi X.<sup>1</sup>, Wang D.<sup>1</sup>, Tian Z.<sup>1</sup>, Shi Q.<sup>2</sup>, Wang J.<sup>2</sup>

**DETERMINATION OF VARIOUS CHEMICAL STRUCTURES IN BASE OIL USING MULTIDIMENSIONAL NMR SPECTROSCOPY**

<sup>1</sup>*Dalian National Laboratory for Clean Energy, Dalian Institute of Chemical Physics, Chinese Academy of Sciences, Dalian, China*

<sup>2</sup>*School of Biological Engineering, Dalian Polytechnic University, Dalian, China*

**06.15 – 06.30**

**OP-13**

**Vatutina Yu.V.**, Kazakov M.O., Nadeina K.A., Budukva S.V., Gerasimov E.Yu., Klimov O.V., Noskov A.S.

**IS IT POSSIBLE TO REACTIVATE HYDROTREATING CATALYST POISONED BY Si?**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

**06.30 – 07.00 – Coffee break**

**Oral Presentations**

**07.00 – 07.15**

**OP-14**

**Danilova I.G.**<sup>1</sup>, Dik P.P.<sup>1</sup>, Gabrienko A.A.<sup>1</sup>, Sorokina T.P.<sup>2</sup>, Paukshtis E.A.<sup>1</sup>, Kazakov M.O.<sup>1</sup>, Doronin V.P.<sup>2</sup>, Kondrashev D.O.<sup>3</sup>, Golovachev V.A.<sup>3</sup>, Kleimenov A.V.<sup>3</sup>, Vedernikov O.S.<sup>3</sup>, Klimov O.V.<sup>1</sup>, Noskov A.S.<sup>1</sup>

**THE INFLUENCE OF FRAMEWORK AND EXTRAFRAMEWORK ALUMINIUM SPECIES IN FAUJASITE ZEOLITES ON VGO HYDROCRACKING OVER NiMo/USY CATALYSTS**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

<sup>2</sup>*Center for New Chemical Technologies BIC, Omsk, Russia*

<sup>3</sup>*PJSC Gazprom neft, Saint Petersburg, Russia*

**07.15 – 07.30**

**OP-15**

**Tregubenko V.Yu.**<sup>1</sup>, Vinichenko N.V.<sup>1</sup>, Vagapova M.N.<sup>2</sup>, Veretelnikov K.V.<sup>3</sup>, Belyi A.S.<sup>1,2</sup>

**NEW NAPHTHA-REFORMING Pt/Al<sub>2</sub>O<sub>3</sub> CATALYSTS WITH Mo OR In**

<sup>1</sup>*Center of New Chemical Technologies BIC, Omsk, Russia*

<sup>2</sup>*Omsk State Technical University, Omsk, Russia*

<sup>3</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

**07.30 – 07.45**

**OP-16**

**Shamanaev I.**, Suvorova A., Gerasimov E., Pakharukova V., Bukhtiyarova G.

**COMPARATIVE STUDY OF Ni-PHOSPHIDE CATALYSTS SUPPORTED ON GRANULATED AL<sub>2</sub>O<sub>3</sub> IN HYDROTREATING OF STRAIGHT RUN GAS OIL**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

**07.45 – 08.00**

**OP-17**

**Belopukhov E.A.**<sup>1</sup>, Smolikov M.D.<sup>1</sup>, Kir'yanov D.I.<sup>1</sup>, Shkurenok V.A.<sup>1</sup>, Belyi A.S.<sup>1</sup>, Kondrashev D.O.<sup>2</sup>, Kleimenov A.V.<sup>2</sup>

**REFORMING CATALYST FOR PRODUCING OF A LOW AROMATICS GASOLINE COMPONENT**

<sup>1</sup>*Center of New Chemical Technologies BIC, Omsk, Russia*

<sup>2</sup>*PJSC Gazprom neft, Saint Petersburg, Russia*

**08.00 – 08.15**

**OP-18**

**Golubev I.S.**<sup>1,2</sup>, Dik P.P.<sup>1</sup>, Kazakov M.O.<sup>1</sup>, Pereyma V.Yu.<sup>1</sup>, Klimov O.V.<sup>1</sup>, Kondrashev D.O.<sup>3</sup>, Golovachev V.A.<sup>3</sup>, Vedernikov O.S.<sup>3</sup>, Kleimenov A.V.<sup>3</sup>, Noskov A.S.<sup>1</sup>

**NiW/Y-ASA-Al<sub>2</sub>O<sub>3</sub> CATALYSTS FOR SECOND STAGE HYDROCRACKING: INFLUENCE OF Si/Al RATIO IN ZEOLITE**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

<sup>3</sup>*PJSC «Gazprom neft», Saint Petersburg, Russia*

**08.15 – 08.30**

**OP-19**

**Belinskaya N.S.**, Ivanchina E.D., Ivashkina E.N., Vymyatnin E.K., Mauzhigunova E.N.

**DEVELOPMENT OF THE APPROACH TO MODELLING OF THE DESTRUCTIVE CATALYTIC HYDROPROCESSES OF ATMOSPHERIC AND VACUUM DISTILLATES CONVERSION**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

**08.30 – 10.00 Lunch**

**Plenary Lecture**

**10.00 – 10.45**

**PL-1**

**Prof. Wilhelm Schwieger**

**HIERARCHICAL ZEOLITES IN PROCESSING OF HYDROCARBONS**

*Friedrich–Alexander University Erlangen–Nürnberg, Germany*

**Keynote Lecture**

**10.45 – 11.15**

**KL-2**

**Prof. Joris Thybaut**

**SIMULATING COMPLEX MIXTURES CONVERSION FROM FIRST PRINCIPLES**

*Ghent University, Ghent, Belgium*

**Oral Presentations**

**11.15 – 11.30**

**OP-20**

**Karakoulia S.A.**<sup>1</sup>, Heracleous E.<sup>1,2</sup>, Lappas A.A.<sup>1</sup>

**Ni AND Pt CATALYSTS SUPPORTED ON SILICOALUMINOPHOSPHATES FOR n-HEXADECANE HYDROISOMERIZATION**

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

<sup>2</sup>*School of Science & Technology, International Hellenic University (IHU), Thessaloniki, Greece*

**11.30 – 11.45**

**OP-21**

**Kokliukhin A.**<sup>1,2,5</sup>, Nikulshina M.<sup>1,2</sup>, Mozhaev A.<sup>1,3,4</sup>, Lancelot C.<sup>2</sup>, Blanchard P.<sup>2</sup>, Marinova M.<sup>3</sup>, Mentré O.<sup>2</sup>, Lamonier C.<sup>2</sup>, Nikulshin P.<sup>1,4,5</sup>

**EFFECT OF Mo/W RATIO ON THE CATALYTIC PROPERTIES OF ALUMINA SUPPORTED HYDROTREATING CATALYSTS PREPARED FROM MIXED SiMo<sub>n</sub>W<sub>12-n</sub> KEGGIN TYPE HETEROPOLYACIDS**

<sup>1</sup>Samara State Technical University, Samara, Russia

<sup>2</sup>University of Lille, Unité de Catalyse et Chimie du Solide, Lille, France

<sup>3</sup>University of Lille, Institut Michel-Eugène Chevreul, Lille, France

<sup>4</sup>All-Russia Research Institute of Oil Refining, Moscow, Russia

<sup>5</sup>Gubkin Russian State University of Oil and Gas, Moscow, Russia

**11.45 – 12.00**

**OP-22**

Vela Diaz F., Trueba D., **Palos R.**, Arandes J.M., Gutiérrez A.

**FUELS OBTAINED FROM HYDROCRACKING OF DIFFERENTS BLENDS OF VGO AND POLYOLEFINIC WASTES**

University of the Basque Country, Bilbao, Spain

**12.00 – 12.30 Coffee break**

**Oral Presentations**

**12.30 – 12.45**

**OP-23**

**Pernalette C.G.**, Ibáñez J., Van Geem K.M., Thybaut J.W.

**FROM BULK PROPERTIES TO SINGLE EVENT MICROKINETICS FOR VGO HYDROCRACKING**

Ghent University, Ghent, Belgium

**12.45 – 13.00**

**OP-24**

**Stepanova L.**<sup>1,2</sup>, Belskaya O.<sup>1,3</sup>, Trenikhin M.<sup>1</sup>, Leont'eva N.<sup>1</sup>, Gulyaeva T.<sup>1</sup>, Likholobov V.<sup>4</sup>

**THE EFFECT OF THE SUPPORT PRECURSOR ON THE PROPERTIES OF BIMETALLIC CATALYSTS Pt-Au/MgAlO<sub>x</sub> IN THE PROPANE DEHYDROGENATION**

<sup>1</sup>Center of New Chemical Technologies BIC, Omsk, Russia

<sup>2</sup>Dostoevsky Omsk State University, Omsk, Russia

<sup>3</sup>Omsk State Technical University, Omsk, Russia

<sup>4</sup>Boreskov Institute of Catalysis, Novosibirsk, Russia

**13.00 – 13.15**

**OP-25**

**Margellou A.**<sup>1</sup>, Rekos K.<sup>1</sup>, Fotopoulos A.<sup>1</sup>, Triantafyllidis K.<sup>1,2</sup>

**CATALYTIC HYDROGENOLYSIS OF LIGNIN TOWARDS THE PRODUCTION OF PHENOLIC BIO-OILS**

<sup>1</sup>Department of Chemistry, Aristotle University of Thessaloniki, Thessaloniki, Greece

<sup>2</sup>Chemical Process and Energy Resources Institute, Centre for Research and Technology Hellas, Thessaloniki, Greece



**13.15 – 13.30**

**OP-26**

**Simakova I.**<sup>1</sup>, Prokhod'ko S.<sup>1</sup>, Niphadkar P.<sup>2</sup>, Bokade V.<sup>2</sup>, Murzin D.Y.<sup>3</sup>

**BIODERIVED ANTIKNOCK ADDITIVES: SYNTHESIS OF GAMMA-VALEROLACTONE BY LIQUID-PHASE LEVULINIC ACID HYDROGENATION OVER VIII GROUP METALS**

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

<sup>2</sup>*CSIR - National Chemical Laboratory, Pune, India*

<sup>3</sup>*Abo Akademy University, Turku, Finland*

**13.30 – 13.45**

**OP-27**

**Zagoruiko A.**, Mikenin P., Lopatin S.

**DECOMPOSITION OF HYDROGEN SULFIDE INTO ELEMENTS IN THE CYCLIC CHEMISORPTION-CATALYTIC REGIME**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

**13.45 – 14.00**

**OP-28**

**Pimerzin Al.A.**<sup>1,2</sup>, Glotov A.P.<sup>2</sup>, Savinov A.A.<sup>1</sup>

**LINEAR ALKANES HYDROISOMERIZATION OVER COMOS CATALYSTS SUPPORTED ON MODIFIED ALUMINOSILICATES**

<sup>1</sup>*Samara State Technical University, Samara, Russia*

<sup>2</sup>*Gubkin Russian State University of Oil and Gas, Moscow, Russia*

## April 28, Wednesday

### Oral Presentations

07.30 – 07.45

OP-29

Belskaya O.

**NEW CATALYSTS BASED ON LAYERED DOUBLE HYDROXIDES FOR THE FURFURAL HYDROGENATION**

*Center of New Chemical Technologies BIC, Omsk, Russia*

07.45 – 08.00

OP-30

Bogomolova T.S., Smirnova M.Yu., Klimov O.V., Noskov A.S.

**CHARACTERIZATION AND HYDROISOMERIZATION PERFORMANCE OF Mg-PROMOTED Pt/ZSM-23/Al<sub>2</sub>O<sub>3</sub> CATALYSTS**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

08.00 – 08.15

OP-31

Nazarova G.<sup>1</sup>, Ivashkina E.<sup>1</sup>, Ivanchina E.<sup>1</sup>, Burumbaeva G.<sup>2</sup>, Kaliev T.<sup>2,3</sup>, Seitenova G.<sup>3</sup>

**KINETIC PATTERNS OF VACUUM DISTILLATE CATALYTIC CRACKING ON DIFFERENT CATALYST**

<sup>1</sup>Tomsk Polytechnic University, Tomsk, Russia

<sup>2</sup>LLP Pavlodar Petrochemical Plant, Pavlodar, Kazakhstan

<sup>3</sup>S. Toraighyrov Pavlodar State University, Pavlodar, Kazakhstan

08.15 – 08.30

OP-32

Vlasova E., Porsin A., Aleksandrov P., Bukhtiyarova G.

**CO-PROCESSING OF RAPESEED OIL – STRAIGHT RUN GAS OIL MIXTURE: PECULIARITIES OF ULSD PRODUCTION WITH IMPROVED COLD FLOW PROPERTIES**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

08.30 – 10.00 Lunch

### Plenary Lecture

10.00 – 10.45

PL-2

Dr. Mohan S. Rana

**RECENT ADVANCES IN RESIDUE HYDROPROCESSING**

*Kuwait Institute for Scientific Research, Safat, Kuwait*

### Keynote Lecture

10.45 – 11.15

KL-3

Dr. Vladimir Danilevich

Danilevich V., Nadeina K., Stolyarova E., Klimov O., Noskov A.

**ALUMINUM OXIDES AS SUPPORTS FOR HYDROTREATING CATALYSTS**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

## Oral Presentations

**11.15 – 11.30**

### OP-33

**Snytnikov P.V.**<sup>1,2</sup>, Rogozhnikov V.N.<sup>1,2</sup>, Badmaev S.D.<sup>1,2</sup>, Potemkin D.I.<sup>1,2</sup>, Shilov V.A.<sup>1,2</sup>, Ruban N.V.<sup>1,2</sup>, Gorlova A.M.<sup>1,2</sup>, Pechenkin A.A.<sup>1,2</sup>, Zazhigalov S.V.<sup>1</sup>, Belyaev V.D.<sup>1,2</sup>, Zagoruiko A.N.<sup>1,2</sup>, Sobyenin V.A.<sup>1,2</sup>

### **STRUCTURED CATALYSTS FOR HYDROCARBONS AND OXYGENATES MIXTURES CONVERSION TO HYDROGEN-RICH GAS**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

**11.30 – 11.45**

### OP-34

**Krivtcova N.**, Ivanchina E.D., Kotcova E.

### **MATHEMATICAL MODELING OF THE HYDROTREATING PROCESS USING BI-FUNCTIONAL CATALYSTS**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

**11.45 – 12.00**

### OP-35

**Potapenko O.V.**<sup>1</sup>, Doronin V.P.<sup>1</sup>, Sorokina T.P.<sup>1</sup>, Iurtaeva A.S.<sup>1</sup>, Plekhova K.S.<sup>1</sup>, Lipin P.V.<sup>1</sup>, Dmitriev K.I.<sup>1</sup>, Porotikova O.V.<sup>1</sup>, Kondrashev D.O.<sup>2</sup>, Kleimenov A.V.<sup>2</sup>

### **NEW ACHIEVEMENTS OF THE CRACKING CATALYSTS DEVELOPMENT FOR PETROCHEMICAL DIRECTION OF PJSC «GAZPROMNEFT»**

<sup>1</sup>*Center of New Chemical Technologies BIC, Omsk, Russia*

<sup>2</sup>*PJSC Gazprom нефт, Saint Petersburg, Russia*

**12.00 – 12.30 Coffee break**

**12.30 – 14.00 FLASH POSTER SESSION**

## April 29, Thursday

### Plenary Lecture

10.00 – 10.45

PL-3

Prof. Angeliki Lemonidou

**INTENSIFICATION OF STEAM REFORMING FOR HYDROGEN PRODUCTION**

*Aristotle University of Thessaloniki, Greece*

### Oral Presentation

10.45 – 11.00

OP-36

Naranov E.R., Sadovnikov A.A., Maximov A.L.

**A STEPWISE FABRICATION OF MORDENITE FRAMEWORK INVERTED (MFI) NANOSHEETS IN ACCELERATED MODE**

*A.V. Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences, Moscow, Russia*

11.00 – 11.15

OP-37

Romero M.A., C.Prieto C.

**INDUSTRIAL HYDROCRACKING UNITS: NEW R&D CHALLENGES AND OPPORTUNITIES AS A WAY FORWARD TO IMPROVE REFINERY MARGINS**

*Cepsa Research Center, Madrid, Spain*

11.15 – 11.30

OP-38

Glotov A.<sup>1</sup>, Stavitskaya A.<sup>1</sup>, Smirnova E.<sup>1</sup>, Gushchin P.<sup>1</sup>, Vinokurov V.<sup>1</sup>, Lvov Y.<sup>1,2</sup>

**MESOPOROUS ALUMINOSILICATES BASED ON NATURAL CLAY NANOTUBES FOR HYDROPROCESSING: SYNTHESIS, PROPERTIES, APPLICATION**

<sup>1</sup>*Gubkin University, Moscow, Russia*

<sup>2</sup>*Institute for Micromanufacturing, Louisiana Tech University, Ruston, USA*

11.30 – 11.45

OP-39

Dimitriadis A.<sup>1</sup>, Bezergianni S.<sup>1</sup>, Meletidis G.<sup>1</sup>, Kokkalis A.<sup>2</sup>, Doufas L.<sup>2</sup>

**ANIMAL FATS: A PROSPEROUS FEED FOR 2<sup>ND</sup> GEN BIOFUELS PRODUCTION**

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

<sup>2</sup>*Green Innovative Company (GRINCO), Larisa, Greece*

11.45 – 12.00

OP-40

Ivanchina E., Chuzlov V., Ivashkina E., Nazarova G., Tyumentsev A.

**MODELING OF MOTOR GASOLINE COMPONENTS COMPLEX PRODUCTION**

*National research Tomsk Polytechnic University, Tomsk, Russia*

12.00 – 12.30 Coffee break

## Oral Presentations

**12.30 – 12.45**

### OP-41

**Stepacheva A.A.**<sup>1</sup>, Markova M.E.<sup>1,2</sup>, Gavrilenko A.V.<sup>1</sup>, Lugovoy Yu.V.<sup>1</sup>, Sulman M.G.<sup>1</sup>, Matveeva V.G.<sup>1,2</sup>, Sulman E.M.<sup>1</sup>

#### **HIGHLY DISPERSED CATALYSTS FOR OIL HYDROPROCESSING IN SUPERCRITICAL CONDITIONS**

<sup>1</sup>*Tver State Technical University, Tver, Russia*

<sup>2</sup>*Tver State University, Tver, Russia*

**12.45 – 13.00**

### OP-42

Manaenkov O.V., Kislitsa O.V., Ratkevich E.A., **Matveeva V.G.**, Sulman M.G., Sulman E.M.

#### **MAGNETICALLY RECOVERABLE CATALYST BASED ON HYPERCROSSLINKED POLYSTERENE FOR CELLULOSE HYDROCONVERSION INTO GLYCOLS**

*Tver Technical University, Tver, Russia*

**13.00 – 13.15**

### OP-44

**Malbakhova I.A.**<sup>1</sup>, Titkov A.I.<sup>1</sup>, Matvienko A.A.<sup>1</sup>, Popov M.P.<sup>1,2</sup>, Nemudry A.P.<sup>1</sup>

#### **THE DEVELOPMENT OF NICKEL MEMBRANES FOR HYDROGEN PURIFICATION**

<sup>1</sup>*Institute of Solid State Chemistry and Mechanochemistry, SB RAS, Novosibirsk, Russia*

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

**13.15 – 13.30**

**Closing Ceremony**

## POSTER PRESENTATIONS

### PP-1

AlHumaidan F.S., Rana M.S., Bouresli R., Raajasekaran N.

#### **GUARD BED CATALYST: ROLE OF TEXTURAL PROPERTIES AND THEIR CHARACTERIZATION**

*Petroleum Research Center, Kuwait Institute for Scientific Research, Safat, Kuwait*

### PP-2

Altynov A., Bogdanov I., Kirgina M.

#### **INVESTIGATION OF THE INFLUENCE OF STABLE GAS CONDENSATE ZEOFORMING PROCESS TECHNOLOGICAL PARAMETERS ON THE OBTAINED PRODUCTS CHARACTERISTICS**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

### PP-3

Baygildin I.G.<sup>1</sup>, Vutolkina A.V.<sup>1</sup>, Maksimov A.L.<sup>1,2</sup>, Karakhanov E.A.<sup>1</sup>

#### **HYDRODESULFURIZATION OF SULFUR-CONTAINING AROMATIC COMPOUNDS VIA WGSR OVER DISPERSED Ni–Mo SULFIDE CATALYSTS**

<sup>1</sup>*Lomonosov Moscow State University, Chemistry Department, Moscow, Russia*

<sup>2</sup>*Topchiev Institute of Petrochemical Synthesis, Russian Academy of Sciences, Moscow, Russia*

### PP-4

Belinskaya N.S.<sup>1</sup>, Ivashkina E.N.<sup>1</sup>, Afanasyeva D.A.<sup>1</sup>, Krivtsova N.I.<sup>1</sup>, Vymyatnin E.K.<sup>1</sup>, Arkenova S.B.<sup>1</sup>, Kaliev T.A.<sup>1,2</sup>

#### **DEVELOPMENT OF THE FORMALIZED SCHEME OF CHEMICAL CONVERSIONS IN THE PROCESS OF VACUUM GAS OIL HYDROTREATING FOR THE PROCESS MODELLING**

<sup>1</sup>*National Research Tomsk Polytechnic University, Tomsk, Russia*

<sup>2</sup>*S. Toraighyrov Pavlodar State University, Pavlodar, Kazakhstan*

### PP-5

Ivanchina E., Ivashkina E., Lutsenko A., Nazarova G., Vymyatnin E., Belinskaya N.S.

#### **HYDROCARBONS CONVERSION REGULARITIES OF DIESEL FRACTION WITH ATMOSPHERIC GAS OIL DURING HYDRODEPARAFFINIZATION**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

### PP-6 (+ FLASH poster presentation)

Sosnina D.V., Belozertseva N.E., Bogdanov I.A.

#### **INVESTIGATION OF THE SYNTHESIS PARAMETERS INFLUENCE ON THE PRODUCT YIELD AND CHARACTERISTICS OF THE PRODUCED BIODIESEL FUELS**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

### PP-7 (+ FLASH poster presentation)

Bogdanov I.A., Martyanova E.I., Altynov A.A.

#### **IMPROVEMENT OF STRAIGHT-RUN DIESEL FUEL LOW-TEMPERATURE PROPERTIES ON THE ZEOLITE CATALYST**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

### PP-8

Demikhova N.<sup>1</sup>, Artemova M.<sup>1</sup>, Glotov A.<sup>1</sup>, Tsaplin D.<sup>2</sup>, Ivanov E.<sup>1</sup>, Vinokurov V.<sup>1</sup>

#### **MICRO-MESOPOROUS Pt-CONTAINING CATALYSTS FOR XYLENES HYDROISOMERIZATION**

<sup>1</sup>*Gubkin Russian State University of Oil and Gas, Moscow, Russia*

<sup>2</sup>*Lomonosov Moscow State University, Chemistry Department, Moscow, Russia*

### **PP-9 (+ FLASH poster presentation)**

Dolganov I.M., **Dolganova I.O.**, Solopova A.A., Pasyukova M.A., Bunaev A.A. Ivanchina E.D., Ivashkina E.N.

#### **INFLUENCE OF FLOW RATE OF LINEAR ALKYL BENZENE IN FILM SULFONATION REACTOR ON CONCENTRATION OF TARGET PRODUCT AND TETRALINES AND SULFONES CONCENTRATION**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

### **PP-10 (+ FLASH poster presentation)**

**Enikeeva L.V.**<sup>1,2</sup>, Faskhutdinov A.G.<sup>3</sup>, Arefyev I.A.<sup>2</sup>, Enikeev M.R.<sup>2</sup>, Gubaydullin I.M.<sup>2,3</sup>

#### **SIMULATION THE CATALYTIC PROCESS OF ISOMERIZATION REACTION OF PENTANE-HEXANE FRACTION TO MAXIMIZE THE OCTANE NUMBER OF REACTION PRODUCTS**

<sup>1</sup>*Novosibirsk State University, Novosibirsk, Russia*

<sup>2</sup>*Ufa State Petroleum Technological University, Ufa, Russia*

<sup>3</sup>*Institute of Petrochemistry and Catalysis of RAS, Ufa, Russia*

### **PP-11 (+ FLASH poster presentation)**

**Enikeeva L.V.**<sup>1,2</sup>, Potemkin D.I.<sup>1,3,4</sup>, Uskov S.I.<sup>1,3</sup>, Snytnikov P.V.<sup>1,3</sup>, Enikeev M.R.<sup>2</sup>, Gubaydullin I.M.<sup>2,5</sup>

#### **GRAVITY SEARCH ALGORITHM FOR DETERMINING THE OPTIMAL KINETIC PARAMETERS OF LOW-TEMPERATURE STEAM CONVERSION OF C<sub>2</sub> + HYDROCARBONS**

<sup>1</sup>*Novosibirsk State University, Novosibirsk, Russia*

<sup>2</sup>*Ufa State Petroleum Technological University, Ufa, Russia*

<sup>3</sup>*Borekov Institute of Catalysis, Novosibirsk, Russia*

<sup>4</sup>*Novosibirsk State Technical University, Novosibirsk, Russia*

<sup>5</sup>*Institute of Petrochemistry and Catalysis of RAS, Ufa, Russia*

### **PP-12**

**Díaz de León J.N.**<sup>1</sup>, Huerta-Mata C.<sup>1,2</sup>, Kumar Chowdari R.<sup>1</sup>, Infantes-Molina A.<sup>3</sup>, Zepeda T.<sup>1</sup>, Alonso-Núñez G.<sup>1</sup>, Fuentes-Moyado S.<sup>1</sup>, Huirache-Acuña R.<sup>2</sup>

#### **TWO STEPS SYNTHESIS OF BULK NiW CATALYSTS FOR 3-METHYL THIOPHENE DESULFURIZATION**

<sup>1</sup>*Universidad Nacional Autónoma de México, Nanoscience and Nanotechnology Center, Ens., B.C., México*

<sup>2</sup>*Facultad de Ingeniería Química, Universidad Michoacana de San Nicolás de Hidalgo, Mexico*

<sup>3</sup>*Universidad de Malaga, Departamento de Química Inorgánica, Cristalografía y mineralogía Malaga, Spain*

### **PP-13 (+ FLASH poster presentation)**

**Glazov N.A.**, Zagoruiko A.N., Dik P.P.

#### **CONNECTION BETWEEN STRUCTURE ATTRIBUTES AND ANALYTICAL METHODS USED FOR STOCHASTIC RECONSTRUCTION OF VACUUM GASOIL**

*Borekov Institute of Catalysis, Novosibirsk, Russia*

### **PP-14**

**Ziyadullaev O.E.**<sup>1,2</sup>, Abdurakhmanova S.S.<sup>1</sup>, Samatov S.B.<sup>1</sup>, Otamukhamedova G.Q.<sup>2</sup>, Tirkasheva S.I.<sup>2</sup>, Ikramov A.<sup>3</sup>

#### **SYNTHESIS OF ACETYLENE ALCOHOLS BY CATALYSTS ZNET<sub>2</sub>/TI(O<sup>i</sup>PR)<sub>4</sub>/PHME AND SN(OTF)<sub>2</sub>/NET<sub>3</sub>/MECN**

<sup>1</sup>*Chirchik State Pedagogical Institute, Chirchik, Uzbekistan*

<sup>2</sup>*National University of Uzbekistan, Tashkent, Uzbekistan*

<sup>3</sup>*Tashkent Chemical Technological Institute, Tashkent, Uzbekistan*

#### PP-15

Kazakova M.A.<sup>1,2</sup>, Vatutina Y.V.<sup>1,2</sup>, Kazakov M.O.<sup>1</sup>, Klimov O.V.<sup>1</sup>, Noskov A.S.<sup>1</sup>

#### NOVEL COMPOSITE SUPPORT FOR CoMoS HYDROTREATING CATALYST BASED ON MWCNTs GROWN ON $\gamma$ -AL<sub>2</sub>O<sub>3</sub> BY CVD

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

#### PP-16

Kovalev I.V.<sup>1,2</sup>, Popov M.P.<sup>1,3</sup>, Bychkov S.F.<sup>1</sup>, Malbakhova I.A.<sup>1</sup>, Nemudry A.P.<sup>1</sup>

#### CATALYTIC CONVERSION OF HYDROCARBONS USING OXYGEN-SELECTIVE MICROTUBULAR MEMBRANES FOR HYDROGEN PRODUCTION

<sup>1</sup>*Institute of Solid State Chemistry and Mechanochemistry, SB RAS, Novosibirsk, Russia*

<sup>2</sup>*Novosibirsk State Technical University, Novosibirsk, Russia*

<sup>3</sup>*Novosibirsk State University, Novosibirsk, Russia*

#### PP-17 (+ FLASH poster presentation)

Krivosos O.I., Terekhova E.N., Belskaya O.B.

#### CATALYTIC HYDROPROCESSING OF ORGANIC MATTER OF SAPROPELS IN VALUABLE CHEMICAL PRODUCTS

*Center of New Chemical Technologies BIC, Omsk, Russia*

#### PP-18 (+ FLASH poster presentation)

Krivtsova N.I., Kotkova E.P.

#### JOINT HYDROTREATING OF DIESEL FRACTION WITH GASOLINE

*National Research Tomsk Polytechnic University, Tomsk, Russia*

#### PP-19 (+ FLASH poster presentation)

Nazarova G.Yu.<sup>1</sup>, Ivanchina E.D.<sup>1</sup>, Chernyakova E.S.<sup>1</sup>, Pchelintseva I.V.<sup>2</sup>, Poluboyartsev D.S.<sup>3</sup>

#### OPTIMIZATION OF A SEMIREGENERATIVE CATALYTIC REFORMING OF NAPHTHA WITH THE MATHEMATICAL MODELLING METHOD USING

<sup>1</sup>*National Research Tomsk Polytechnic University, Tomsk, Russia*

<sup>2</sup>*«GasInformPlast» Well Testing Center, Tomsk, Russia*

<sup>3</sup>*Joint stock company «Tomsk Oil and Gas Research and Design Institute», Tomsk, Russia*

#### PP-20

Nikoshvili L., Grigorev M., Abusuek D., Mikhailov S., Matveeva V., Sulman E.

#### MONO- AND BIMETALLIC CATALYSTS BASED ON HYPER-CROSSLINKED POLYSTYRENE FOR HYDROGENATION OF BIOMASS-DERIVED LEVULINIC ACID

*Tver State Technical University, Tver, Russia*

#### PP-21 (+ FLASH poster presentation)

Salnikova K.E.<sup>1,2</sup>, Sulman M.G.<sup>1</sup>, Mikhailov S.P.<sup>1,2</sup>, Bykov A.V.<sup>1</sup>, Matveeva V.G.<sup>1,2</sup>

#### FURFURYL ALCOHOL AS ONE OF THE PRODUCTS OF LIGNOCELLULOSIC BIOMASS HYDROTREATMENT

<sup>1</sup>*Tver State Technical University, Tver, Russia*

<sup>2</sup>*Tver State University, Tver, Russia*



#### **PP-22 (+ FLASH poster presentation)**

Orlova A.M., Bogdanov I.A., Kirgina M.V.

#### **INVESTIGATION THE INFLUENCE OF ADDITION THE HEAVY N-PARAFFINS ON THE EFFECTIVENESS OF DEPRESSANT ADDITIVE ACTION**

*National Research Tomsk Polytechnic University, Tomsk, Russia*

#### **PP-23**

Podryga V.<sup>1,2</sup>, Polyakov S.<sup>1,3</sup>, Trapeznikova M.<sup>1,2</sup>, Churbanova N.<sup>1,2</sup>

#### **DEVELOPING OF MULTISCALE APPROACH TO HPC-SIMULATION OF MULTIPHASE FLUID FLOWS**

<sup>1</sup>*Keldysh Institute of Applied Mathematics RAS, Moscow, Russia*

<sup>2</sup>*Moscow Automobile and Road Construction State Technical University, Moscow, Russia*

<sup>3</sup>*National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia*

#### **PP-24**

Popov M.V.<sup>1,2</sup>, Zagoruiko A.N.<sup>3</sup>, Brester A.E.<sup>2</sup>, Lopatin S.A.<sup>3</sup>

#### **DECOMPOSITION OF LIGHT HYDROCARBON TO HYDROGEN ON A FIBERGLASS CATALYST**

<sup>1</sup>*N.D. Zelinsky Institute of Organic Chemistry Russian Academy of Sciences, Moscow, Russia*

<sup>2</sup>*Novosibirsk Technical State University, Novosibirsk, Russia*

<sup>3</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

#### **PP-25**

Zazhigalov S.<sup>1,2</sup>, Popov M.<sup>2,3</sup>, Nemudry A.<sup>3</sup>, Zagoruiko A.<sup>1,2</sup>

#### **MATHEMATICAL MODELING AND EXPERIMENTAL STUDIES OF HYDROGEN COMBUSTION IN MICROTUBULAR SOLID OXIDE FUEL CELLS**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

<sup>3</sup>*Institute of Solid State Chemistry and Mechanochemistry SB RAS, Novosibirsk, Russia*

#### **PP-26**

Zazhigalov S.V.<sup>1,2</sup>, Rogozhnikov V.N.<sup>1,2</sup>, Snytnikov P.V.<sup>1,2</sup>, Potemkin D.I.<sup>1,2</sup>, Simonov P.A.<sup>1,2</sup>, Shilov V.A.<sup>1,2</sup>, Ruban N.V.<sup>1,2</sup>, Kulikov A.V.<sup>1,2</sup>, Sobyenin V.A.<sup>1,2</sup>, **Zagoruiko A.N.**<sup>1,2</sup>

#### **MODELING OF HYDROGEN PRODUCTION BY DIESEL REFORMING AT Rh/Ce<sub>0.75</sub>Zr<sub>0.25</sub>O<sub>2-δ</sub>-η-Al<sub>2</sub>O<sub>3</sub>/FeCrAl WIRE MESH HONEYCOMB CATALYTIC MODULE**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

#### **PP-27**

Potemkin D.I.<sup>1,2</sup>, Uskov S.I.<sup>1,2</sup>, Gorlova A.M.<sup>1,2</sup>, Zagoruiko A.N.<sup>1,2</sup>, Fedorova Z.A.<sup>1,2</sup>, Snytnikov P.V.<sup>1,2</sup>, Kirillov V.A.<sup>1,2</sup>, Sobyenin V.A.<sup>1,2</sup>

#### **HYTHANE PRODUCTION VIA LOW-TEMPERATURE STEAM REFORMING OF NATURAL GAS**

<sup>1</sup>*Boreskov Institute of Catalysis, Novosibirsk, Russia*

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

#### **PP-28 (+ FLASH poster presentation)**

Sineva L.V., Nalivaiko (Gorokhova) E.O., Gryaznov K.O., Mordkovich V.Z.

#### **ZEOLITES AS A TOOL FOR INTENSIFICATION OF MASS TRANSFER ON THE SURFACE OF A COBALT FISCHER–TROPSCH SYNTHESIS CATALYST**

*Technological Institute for Superhard and Novel Carbon Materials, Troitsk, Moscow, Russia*

#### PP-29

**Stepacheva A.A.**, Bykov A., Demidenko G., Nikoshvili L., Bakhvalova E., Dobryanskaya A., Matveeva V., Sulman M.

#### **NOBLE METAL-CONTAINING NANOPARTICLES STABILIZED IN HYPERCROSSLINKED POLYSTYRENE AS EFFECTIVE CATALYSTS OF AROMATIC RING HYDROGENATION**

*Tver Technical University, Dep. Biotechnology, chemistry and standardization, Tver, Russia*

#### PP-30 (+ FLASH poster presentation)

**Stepacheva A.A.**, Shimanskaya E., Molchanov V., Sulman A., Sulman E., Sulman M.

#### **LIGNIN AND MODEL SUBSTANCE CATALYTIC HYDROGENOLYSIS**

*Tver State Technical University, Tver, Russia*

#### PP-31

Pérez-Cabrera L.<sup>1</sup>, Antúnez-García J.<sup>1</sup>, Díaz de León J.N.<sup>1</sup>, Suresh C.<sup>2</sup>, Zepeda T.A.<sup>1</sup>, **Fuentes-Moyado S.**<sup>1</sup>, Alonso-Núñez G.<sup>1</sup>

#### **DOUBLE PROMOTION EFFECT ON HDS CoNiMo/Al<sub>2</sub>O<sub>3</sub> CATALYSTS APPLIED IN THE HYDRODESULFURIZATION OF DIBENZOTHIOPHENE**

<sup>1</sup>*Universidad Nacional Autónoma de México, Centro de Nanociencias y Nanotecnología, Ensenada, México*

<sup>2</sup>*Electrodics and Electrocatalysis Division, CSIR-Central Electrochemical Research Institute, Karaikudi, India*

#### PP-32

Pérez-Cabrera L., Antúnez-García J., Díaz de León J.N., Galván D.H., Zepeda T.A., Alonso-Núñez G., **Fuentes-Moyado S.**

#### **NiMoW CATALYSTS SUPPORTED ON MgO-Al<sub>2</sub>O<sub>3</sub> MIXED OXIDES FOR THE HYDRODESULFURIZATION OF DIBENZOTHIOPHENE**

*Universidad Nacional Autónoma de México, Centro de Nanociencias y Nanotecnología. Ensenada, México*

#### PP-33

**Cherednichenko A.G.**, Markova E.B., Akhmedova L.S., Kovtun S.O., Serov Ju.M.

#### **INVESTIGATION OF CATALYTIC CRACKING PROCESSES OF PROPANE AND POLYPROPYLENE USING GADOLINIUM MOLYBDATES AND TUNGSTATES Gd<sub>2</sub>(MO<sub>4</sub>)<sub>3</sub> (M=Mo, W)**

*RUDN University (Peoples' Friendship University of Russia), Moscow, Russia*

#### PP-34

Eran N.T.<sup>1</sup>, Galli F.<sup>1</sup>, Pirola C.<sup>2</sup>, Mazzone F.<sup>2</sup>, Patience G.S.<sup>1</sup>

#### **The Review of Recent Fischer Tropsch Catalysts: A Guide to understand the effect of catalyst structure on the catalyst activity**

<sup>1</sup>*Chemical Engineering Department, Polytechnique Montréal, Montreal, Canada*

<sup>2</sup>*Università degli Studi di Milano, Dipartimento di Chimica, Milano, Italy*

#### PP-35

**Mamedova M.T.**, Abasov S.I., Agaeva S.V., Isaeva E.S., Imanova A.A., Zarbaliev R.R., Khudiev A.T.  
**JOINT HYDROTRANSFORMATION OF A MIXTURE OF STRAIGHT-RUN GASOLINE AND TOLUENE ON A COMPOSITE ZEOLITE CONTAINING CATALYST**

*The Y.H. Mamedaliyev Institute of Petrochemical Processes, National Academy of Sciences of Azerbaijan, Baku, Azerbaijan*

**PP-36**

**Mamedova M.T.**, Abasov S.I., Agaeva S.B., Iskenderova A.A., Nasibova A.R., Nasirova F.M., Chalabova K.S.

**JOINT CONVERSION OF STRAIGHT-RUN GASOLINE AND PROPANE-BUTANE FRACTION ON ZEOLITE CONTAINING COMPOSITE CATALYSTS**

*The Y.H. Mamedaliyev Institute of Petrochemical Processes, National Academy of Sciences of Azerbaijan, Baku, Azerbaijan*

**PP-37**

Yunusov M.P.<sup>1</sup>, **Nasullaev Kh.A.**<sup>1,2</sup>, Djalalova Sh.B.<sup>1</sup>, Gulomov Sh.T.<sup>1</sup>, Sultanov A.P.<sup>1</sup>

**STUDY OF ZEOLITE SORBENTS SYNTHESIZED BASED ON LOCAL KAOLIN**

<sup>1</sup>*UzKFITI, Tashkent, Uzbekistan*

<sup>2</sup>*National University of Uzbekistan named after M. Ulugbek, Tashkent, Uzbekistan*

**PP-38**

Yunusov M.P.<sup>1</sup>, **Nasullaev Kh.A.**<sup>1,2</sup>, Gulomov Sh.T.<sup>1</sup>, Turdieva D.P.<sup>1</sup>, Abduraxmanova I.S.<sup>3</sup>, Rahimjanov B.B.<sup>3</sup>

**OPTIMIZATION OF THE SYNTHESIS TECHNOLOGY OF HIGHLY DISPERSED ALUMINUM HYDROXIDE USING VARIOUS REAGENTS**

<sup>1</sup>*UzKFITI, Tashkent, Uzbekistan*

<sup>2</sup>*National University of Uzbekistan named after M. Ulugbek, Tashkent, Uzbekistan*

<sup>3</sup>*TChTI, Tashkent, Uzbekistan*

**PP-39**

**Gubaydullin I.M.**<sup>1,2</sup>, Koledina K.F.<sup>1,2</sup>, Zaynullin R.Z.<sup>2</sup>, Koledin S.N.<sup>2</sup>

**MATHEMATICAL MODELING OF KINETICS OF GASOLINE CATALYTIC REFORMING**

<sup>1</sup>*Institute of Petrochemistry and Catalysis RAS, Ufa, Russia*

<sup>2</sup>*Ufa State Petroleum Technological University, Ufa, Russia*

**PP-40**

Koledina K.F.<sup>1,2</sup>, **Gubaydullin I.M.**<sup>1,2</sup>, Koledin S.N.<sup>2</sup>

**MULTI-CRITERIAL OPTIMIZATION OF A HETEROGENEOUS CATALYTIC REACTION**

<sup>1</sup>*Institute of Petrochemistry and Catalysis RAS, Ufa, Russia*

<sup>2</sup>*Ufa State Petroleum Technological University, Ufa, Russia*

**PP-41**

**Kondrasheva N.K.**, Konoplin R.R., Kondrashev D.O., Parfenova L.V., Shaidulina A.A.

**PUT INTO INDUSTRIAL PRODUCTION DIFFICULTIES OF NOVEL EFFECTIVE HYDRODESULFURIZATION-CATALYSTS IN RUSSIAN FEDERATION**

*Saint-Petersburg Mining University, Saint Petersburg, Russia*

# VIRTUAL PARTICIPATION

## (abstract publication)

### VP-1

**Frantsina E.V.**<sup>1</sup>, Grinko A.A.<sup>1</sup>, Maylin M.V.<sup>1</sup>, Berdnikova A.A.<sup>1</sup>, Mashnich V.S.<sup>1</sup>

#### THE USE OF CHROMATOGRAPHY-MASS SPECTROMETRY IN THE STUDY OF THE HYDROCARBON COMPOSITION OF DIESEL FUELS

<sup>1</sup>National Research Tomsk Polytechnic University, Tomsk, Russia

### VP-2

**Boldushevskii R.**<sup>1,2</sup>, Iusovskii A.<sup>1,2</sup>, Guseva A.<sup>1,2</sup>, Nikulshin P.<sup>1,2</sup>, Shmelkova O.<sup>1</sup>, Chernysheva E.<sup>2</sup>, Kapustin V.<sup>2</sup>

#### HEAVY FEEDSTOCK HYDROPROCESSING FOR MARINE FUELS PRODUCTION

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### VP-3

**Khazipov M.R.**, Pastushenko I.L., Galimova A.T., Sagdeev A.A., Kiryukhin V.G., Pletnev A.S.

#### REGENERATION OF LD-145 CATALYST BY SUPERCRITICAL FLUID EXTRACTION

Nizhnekamsk Institute of Chemical Technology (branch) Federal State Budgetary Educational Establishment of Higher Education, KNITU, Nizhnekamsk, Russia

### VP-4

**Sadovnikov A.A.**, Naranov E.R., Maximov A.L.

#### HYDROTHERMAL SYNTHESIS OF FLUORINATED TITANIA FOR PHOTOCATALYTIC APPLICATIONS

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

### VP-5

**Roldugina E.A.**<sup>1</sup>, Shayakhmetov N.N.<sup>1</sup>, Maximov A.L.<sup>1,2</sup>, Karakhanov E.A.<sup>1</sup>

#### HYDROTREATMENT OF FURFURAL AS BIO-OIL MODEL COMPOUND OVER Ru-CATALYSTS SUPPORTED ON MESOPOROUS MATERIALS

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