

*Olena Shyshchak*

VII<sup>th</sup> INTERNATIONAL SCIENTIFIC-TECHNICAL CONFERENCE  
 "ADVANCE IN PETROLEUM AND GAS INDUSTRY  
 AND PETROCHEMISTRY" (APGIP-7)

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The VII<sup>th</sup> International Conference "Advance in Petroleum and Gas Industry and Petrochemistry" (APGIP-7) was held on May 19-24, 2014 in Lviv Polytechnic National University (Ukraine). It was organized by Ministry of Education and Science of Ukraine, Department of Chemistry and Technology of Petroleum (the Head of the Department – Prof. Michael Bratychak) and Ukrainian Oil and Gas Academy.

The scope of this Conference embraced the state and future trends in petroleum processing and petroleum products use, possibility of technological equipment improvement, especially for Ukrainian refineries and gas plants, assortment and quality of existing products.

The Conference's program included 5 main topics:

- Oil and Gas Processing
- Petrochemistry and Coal Chemistry
- Chemmotology of Lubricants and Technical

Liquids

- Organic Synthesis Products, Polymeric

Materials and Composites

- Ecological Aspects of Refineries

About 90 participants from 6 countries (Ukraine, USA, Poland, Georgia, Azerbaijan and Russia) took part in the meeting. Among the participants: Professors – 23; DSc. – 38; post-graduated students – 22.

On May 20, after the opening ceremony, 6 plenary lectures were presented:

– *Prof. Michael Bratychak*, Volodymyr Gumenetsky and Olena Shyshchak (*Lviv Polytechnic National University, Lviv, Ukraine*) Department of Oil and Gas Processing of Lviv Polytechnic National University. 90<sup>th</sup> Anniversary.

– *Dr. Petro Topilnitskiy* (*Lviv Polytechnic National University, Lviv, Ukraine*) Oil Complex of Ukraine. Problems and Prospect.

– *Dr. Alexander Danilov* (*Al-Russian Scientific-Research Institute of Oil Processing, Moscow, Russia*) Additives Used While Fuels Production.

– *Prof. Sergii Boichenko*, Anna Iakovlieva, Anna Azarenkova and Iryna Shkilnyuk (*National Aviation University, Kyiv, Ukraine*) Causal Effect of Chemmotological Aspects, Technical Regulations and Standards in the Oil and Gas Industry. Concept of the Development and Implementation of Technical Regulations on Requirements for Aviation Fuels.

– *Prof. Jozef Haponiuk*, Michał Strankowski, Łukasz Piszczyk and Magdalena Danowska (*Gdansk University of Technology, Gdansk, Poland*) Polymer Composites Containing Graphene or its Derivatives.

– *Prof. Georgiy Pop*, Oleh Donets and Leonid Zheleznyi (*Institute of Bioorganic Chemistry and Petrochemistry of the National Academy of Sciences of Ukraine, Kyiv, Ukraine*) By-Products of Oils Production – Environmentally Friendly Functional Additives to the Lubricants.

Two sessions were included in the scientific program: "Oil and Gas Processing" and "Petrochemistry" (50 oral reports and 52 posters).

Problems of oil refineries (B. Maksymovych, State Enterprise "Lvivdipronaftokhim", Ukraine); diesel fuel alternative components (Dr. O. Shevchenko, Dnipropetrovsk State Chemical-Technological University, Ukraine); regulation of gasoline losses (Dr. L. Chernyak, National Aviation University, Ukraine); zirconium-silicate and zeolite catalyst in vacuum gas oil cracking (Prof. V. Brei, Institute for Sorption and Endoecology Problems, Ukraine); catalytic cracking of vacuum gas oil via aerosol nanocatalysis (O. Kashcheev, JSC "Khimproekt", Severodonetsk, Ukraine); improvement of ecological characteristics of jet fuels using oil-derived biocomponents (A. Iakovlieva, National Aviation University, Ukraine); characteristics of automotive gasoline component structure (A. Azaren-

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kova, National Aviation University, Ukraine); fuel properties improvement based on liquefied gases (Dr. P. Topilnytsky, Lviv Polytechnic National University); methanol synthesis (Prof. S. Ledakowich, Lodz University of Technology, Poland); hydrocarbons conversion under supercritical conditions (R. Korzh, Institute of Bioorganic Chemistry and Petrochemistry, Ukraine); non-ionogenic demulsifiers based on ethylene and propylene oxides (Yu. Golych, JSC "Ukratnafta", Kremenchuk, Ukraine); ecological properties of superalkaline lubricants (Prof. Ye. Kobylansky, Scientific-Research Institute "Masma", Ukraine); melt catalytic properties during crude oil cracking (Ye. Chernousov, Technological Institute, Severodonetsk, Ukraine); stable oil mixtures formation (Dr. O. Tertysnaya, Dnipropetrovsk State Chemical-Technological University, Ukraine); coal oxidation mechanism (Dr. D. Miroshnichenko, Ukrainian State Scientific-Research Institute of Coal, Ukraine); geochemical characteristics of pyrolysis liquid products (Dr. V. Shevkoplyas, Donetsk Institute of Physico-Organic Chemistry and Coal Chemistry, Ukraine); polymethacrylate additives for the regulation of oil products properties (Prof. V. Voloshynets, Lviv Polytechnic National University, Ukraine); mechanism of bentonite lubricants action (M. Kurbatova, Scientific-Research Institute "Masma", Ukraine); nanoporous carbon materials based on coals activated by alkaline (Yu. Tamarkina, Donetsk Institute of Physico-Organic Chemistry and Coal Chemistry, Ukraine) and others were discussed during the first session.

The participants of the second session "Petrochemistry" discussed development of indestructible polymer + ceramic filler spools for cables (Prof. W. Brostow, University of North Texas, USA); impact of buckminsterfullerene and fullerene C<sub>60</sub>/C<sub>70</sub> on the thermooxidative degradation of polyolefines (Prof. E. Zeynalov, Institute of Petrochemical Process, Baku, Azerbaijan); comb-type organosilicon matrix for solid

polymer electrolyte membranes (Prof. O. Mukbaniani, Tbilisi State University, Georgia); peculiarities of commercialization of block-polyurethane composites for tribotechnology (Dr. V. Anisimov, Dnipropetrovsk State Chemical-Technological University, Ukraine); facile synthesis of carbon nano-onions and nickel oxide/hydroxide composites as a supercapacitor electrode (D. Brus, University of Bialystok, Poland); Fisher-Tropsch synthesis via aerosol catalysis technology (A. Domnin, Technological Institute, Severodonetsk, Ukraine); macromolecular design of polymeric orientants (Dr. L. Vretik, Kyiv National University, Ukraine); structure and electrochemical properties of carbon nano-onions (O. Mykhailiv, University of Bialystok, Poland); new composite based on colar-tar asphalt (Dr. I. Krutko, Donetsk National Technical University, Ukraine); reagent treatment of hydrogen sulfur of crude benzene from by-product coke plants (T. Titov, Vinnytsa National Technical University, Ukraine) and other vital problems.

Representatives of 5 Ukrainian industrial enterprises and private firms took part in the conference's work: JSC "Kherson refinery", "Agrinol" firm (Berdyansk), JSC "Palyvno-Alternatyvni Technologii" (Kyiv), JSC "Naftokhimik Prykarpattya" (Nadvirna) and JSC "Ukrnaftokhimproekt" (Lviv). They represented the results of new technologies implementation, achievements in the production of new products and routes of cooperation between scientific-research institutes and the industry.

Two poster sessions included about 52 posters which discussed some particular tasks in the field of petroleum and gas refining as well as petrochemistry, chemotology, coal industry and ecology.

The Prize Committee chaired by Prof. Witold Brostow (University of North Texas, USA) has awarded Young Investigator Prizes to the young scientists.

The next VIII<sup>th</sup> conference will be held in May, 2016.