

Olena Shyshchak

VITH SCIENTIFIC-TECHNICAL CONFERENCE "ADVANCE IN PETROLEUM AND GAS INDUSTRY AND PETROCHEMISTRY"

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The VIth Conference "Advance in Petroleum and Gas Industry and Petrochemistry" was held on April 25-28, 2012 in Lviv Polytechnic National University (Ukraine). It was organized by Ministry of Education, Youth and Sports 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.
- Ecology.

About 120 participants from 7 countries (Ukraine, USA, Germany, Israel, Poland, Georgia and Turkey) took part in the meeting.

On April 25, after the opening ceremony, 6 plenary lectures were presented:

– Prof. Michael Bratychak (*Lviv Polytechnic National University, Lviv, Ukraine*) "Problems and Prospects of Ukrainian Oil and Gas Industry"

– Oleg Figovsky (*International Nanotechnology Research Center Polymate, Israel & Nanotech Industries, Inc., CA, USA*) "Advanced Environment Friendly Nanotechnology"

– Yosyp Lyubinin and Leonid Zheleznyi (*Ukrainian Scientific-Research Institute of Petroleum Refining, Kyiv, Ukraine*) "Modern State and Prospects of Development, Production and Use of High-Temperature Lubricants

– Andriy Kopach (*JSC "Ukrnaftokhimproect", Lviv branch, Ukraine*) "Modern State and Advanced Tendency in the Designing in the Oil Refining Industry"

– Omari Mukbaniani *et al.* (*Iv. Javakhishvili Tbilisi State University, Georgia*) "Comb-Type Methylsiloxane Polymers: Synthesis, Properties & Application"

– Bogdan Kochirko *et al.* (*Ukrainian Scientific-Research Institute of Petroleum Refining, Kyiv, Ukraine*) "Peculiarities of Bio-Fuel Development in Ukraine"

– Sergiy Boichenko (*National Aviation Institute, Kyiv, Ukraine*) Innovative Thinking of Chemmotology in an Integrated System of Knowledge"

- Petro Topilnitskiy and Victoria Romanchuk (*Lviv Polytechnic National University, Lviv, Ukraine*) "Commercial Implementation of Nitrogen- and Oxygen-Containing Corrosion Inhibitors at JSC „Ukratnafta“ and Gnidyni Gas Plant JSC „Ukrnafta“

Two sessions were included in the scientific program: "Oil and Gas Processing" and "Petrochemistry".

Problems of alternative motor fuels use (Prof. L. Kvitkovsky, Lviv Polytechnic National University, Ukraine), use of shale gas (Dr. H. Machowska, Cracow University of Technology, Poland), demulsifies efficiency (Prof. M. Paczuski, Warsaw Polytechnic University, Poland), hydrodechlorination of tetrachlormethane over platinum catalysts (Prof. Z. Karpinski, Institute of Physical Chemistry PAS, Poland), prospects of alternative fuels production (Dr. B Kochirko, Ukrainian Scientific-Research Institute of Petroleum Refining, Ukraine), n-pentane conversion over AlF₃-supported noble metal catalysts (Dr. O. Machynskyy, Institute of Physical Chemistry PAS, Poland), problems of petroleum bitumen modification (Prof. O. Hrynyshyn, Lviv Polytechnic National University), propane dehydrogenation in the presence of CO₂ (Dr. P. Michorczyk, Cracow University of Technology, Poland), obtaining of low olefins and

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arenes via catalytic conversion of C₄ fraction (Prof. V. Shevchuk, Lviv Polytechnic National University), effect of coal petrographic characteristics over coke products yield (Dr. D. Miroschnichenko, Ukrainian State Scientific-Research Institute of Coal, Ukraine) and others were discussed during the first session.

The participants of the second session "Petrochemistry" discussed carbon-nanotube-reinforced polymers (Dr. L. Prado, Hamburg-Harburg Technical University, Germany), thermoelectric devices with high temperature polymeric coatings (Prof. W. Brostow, University of North Texas, USA), AFM studies of elastomer modified asphalts (Prof. H. Janik, Gdansk University of Technology, Poland), physico-mechanical properties of self-compacting concrete (Dr. O. Gencel, Bartin University, Turkey), pseudo-live radical photopolymerization (Prof. V. Syromyatnikov, Kyiv National University, Ukraine), important engineering polymers (Prof. Z. Wielgosz, Industrial Chemistry Research Institute, Poland), carbonation process in

microemulsions (Prof. G. Pop, Institute of Bioorganic Chemistry and Petrochemistry, Ukraine) and other vital problems.

Representatives of 5 Ukrainian great industrial enterprises and private firms (Kherson, Drogobych, Nadvirna, Kyiv and Avdiivka) took part in the conference's work. 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 75 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 VIIth conference will be held in 2014. The same year the Department of Chemistry and Technology of Petroleum will celebrate its 90th anniversary.