

2nd World Congress on Petrochemistry and Chemical Engineering

October 27-29, 2014 Embassy Suites Las Vegas, USA

Motor and residual types of fuels for land and marine transport

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At present there are studies on rational use of products of deep oil processing in the composition of diesel and marine fuels, as well as in residual fuels. Technical specifications for all types of marine fuels (distillate and residual) were composed both in Russia and abroad. However, it is a common case that ship fuels are still made by mixing commercial fuels (from oil refineries) having a large quality resource without consideration of their nature and composition at refueling bases. This leads to loss of quality and ship operation complications – fuel stratification, precipitation of low-soluble compounds, carbon deposits in the engine, exhaust smoking and pollution. Also, not enough attention is paid to expanding of the feedstock resources and the rational use of products of deep processing not only in residual but also in motor ship fuels. Due to the deepening of oil refining and change in the structure of commercial fuels, as well as improvements of diesel engines and fuel systems on ships, there is an urgent need to revise the traditional requirements for motor fuels and residual fuels used in marine diesel engines by replacing the obsolete fuels by more modern and high-quality fuels in terms of both performance and environmental properties.

Our research is aimed at developing a new technology for unified types of marine fuels produced from deep oil processing products to replace a large range of water transport commercial fuels some of which are obsolete and do not meet modern requirements.

Biography

Nataliya Kondrasheva has completed her PhD studies at the Ufa State Petroleum Technological University (Russia) in 1998 and become a professor at the university in 2001. She has published more than 100 scientific works in the field of oil refining. Now she is a professor at the National Mineral Resources University, Saint-Petersburg, Russia.

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