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## Ethylene-vinyl acetate copolymer-based depressants in marine fuels

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The use of fuels derived from paraffin-base oils is complicated due to their high pour point and low mobility at low temperatures, which require the special fuel preparation systems. The pumpability and themobility of such fuels at low temperatures can be improved by making their fractional composition lighter (thereby leading to a significant reduction in resources of motor fuels), using the expensive and energy-intensive de-waxing and hydro isomerization processes, and introducing high-performance depressants that lower the pour point of petroleum products. The last option is the most appropriate and cost-effective in the case of successful selection of an effective additive.

When choosing depressants for various paraffinic fuels, it is necessary to consider all factors that determine their effectiveness, primarily, the chemical composition and molecular structure of the additive and the component and hydrocarbon composition of the basefuel. Particular attention should be paid to the concentration of solid paraffin hydrocarbons in the distillate to be depressed and their melting point. A type of effective pour-point depressants is ethylene–vinyl acetate (EVA) copolymers represented as concentrates of these products in the paraffin–naphthene fraction orin light catalytically cracked gasoil.

In this regard, a systematic study of the effect of promising copolymer depressant additives on the low-temperature properties of middle and heavy distillates, obtained via primary distillation or in secondary processes to be components of commercial marine fuels, is of great importance, as well as optimization of the composition of these additives.

## 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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