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
Unique in Composition and Stability Water-fuel Emulsion

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Abstract

The purpose of the research is to analyze the use of water-fuel emulsions (VTE) and to develop a method for producing highly stable VTE with a high water content. The method is based on the introduction and mixing in a diesel fuel (DF) of a complex of hydrophobic emulsifiers, the introduction and mixing in a distilled water of a complex of hydrophilic emulsifiers, mixing the fuel and water compositions, mixing them, introducing additional stabilizing and oil components and mechano into the mixture -chemical treatment by pumping the mixture for 3 ... 5 min at a flow rate of 10 cm / s in a combined static mixer-activator according to the patent of the Russian Federation No. 2411074. As a result of long-term studies, a unique composition and more than annual VTE resistance, containing 65% of diesel fuel, 33% of water and 2% of a complex of emulsifiers. VTE chemotological and chromatographic analyzes have shown compliance with its technical regulations for motor fuels; it reduces diesel fuel consumption by 9% and costs 25 rubles / liter. Repeated control of VTE showed the immutability of its properties. Comparison of the spectrograms of water and VTE did not show water in VTE. Modification of fuels and VTE is explained by mechanochemistry in the activator. And its further continuation has no proper explanation. It is possible that it is due to active radicals formed in the activator. The prevalence of lungs and the lower content of heavy components in VTE is of an extraordinary nature and indicates the high efficiency of the activator and the uniqueness of the obtained VTE.

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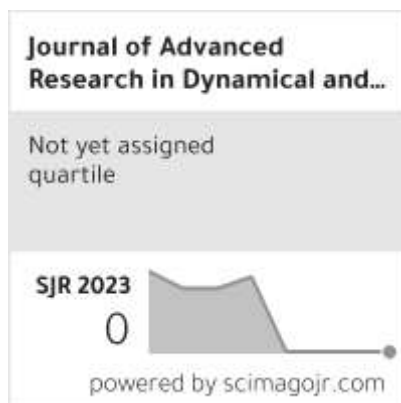
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