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PERSPECTIVE DIRECTIONS OF COMPLEX PROCESSING OF RESIDUAL PRODUCT OF THE PROCESS «UNICRACKING»

The residual product of the process of hydrocracking of vacuum gasoil, received by technology "Unicracking", is a complex mixture of high boiling compounds consisting of mainly paraffin and naphthen hydrocarbons with ultra low sulfur content. This product can be used not only as a component of low-sulfur fuel oil, but also as a raw material for the production of lower olefins[1], which are the raw material base of the modern petrochemical industry; obtaining base oils corresponding to group III according to API classification[2]; and greases[3].

One of the perspective directionof complex processing to refining residual product of the process "Untracking" is to obtain white oils. These oils can be used both for technical purposes and in medicine, pharmacology and cosmetology. The most important indicators of the quality of white oils, in addition to kinematic viscosity, density and flash point, are: pour point, color and content of aromatic hydrocarbons. White oils should be a colorless, buttery, clear, non-fluorescent, odorless and tasteless liquid.

To make white oils the residual product of the process "Unicracking" must be subjected to dewaxing and deep cleaning. The traditional method of producing white oils is sulfuric acid purification of oil fractions. But this method is not effective for the purification of the studied raw materials. White oils can be obtained by deep hydrogenation of the residual product of the hydrocracking process [4]. However, the implementation of this technology requires large investments.

One of the most effective and relatively simple ways to obtain white oils from the residual product of the hydrocracking process is the adsorption purification method. As an adsorbent, it is proposed to use modified bleaching clays, which allow to improve the color and reduce the content of aromatic hydrocarbons in the studied product. The possibility of adsorbent regeneration was studied.

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