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STUDYING THE DEPENDENCE OF TEMPERATURE AND YIELD ON THE SYNTHESIS OF E-3 BRAND ORGANIC COMPOSITE ADDITIVES CONTAINING EPICHLOROHYDRIN, SODIUM ACETATE AND OXYGEN COMPOUNDS

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Abstract: *Oil industry occupies an important place in the economy of Uzbekistan. The strength of each Arab country is determined by the presence and level of development of the fuel and energy complex . This industry includes oil, natural gas , and coal production.*

Keywords: *epichlorohydrin, sodium acetate, oxygen compounds, thermometer, organic esters.*

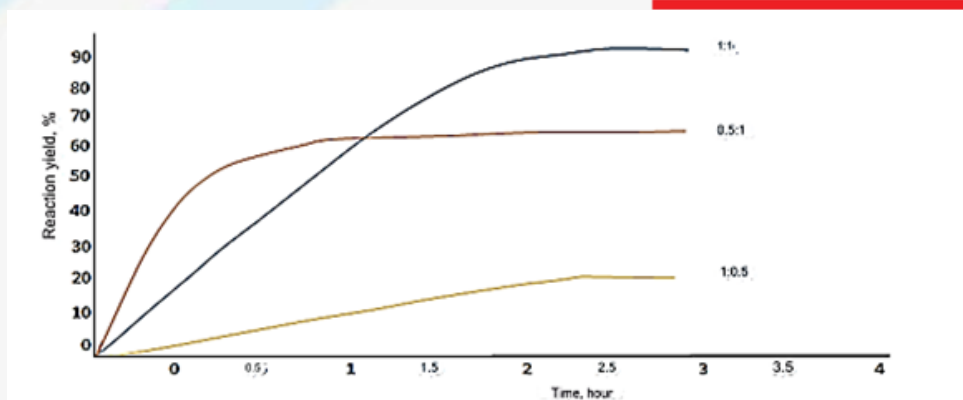
In the current conditions, the importance of oil in the fuel industry is increasing even more than before . In this regard, oil fields in Kashkadarya, Surkhandarya, Bukhara, Fergana regions and Namangan region have great prospects. 2 in the republic in 1990 million 810,000 tons of oil (including gas condensate) were extracted, and in the past short historical period of independence , oil production in the republic exceeded 7,534 million tons by 2000 [3] . In the first years of independence - in 1991, 4.5 million tons of oil and oil products were purchased from Russia and other neighboring countries [1,2,4].

Experience part : Organic esters were obtained by reacting sodium acetate and epichlorohydrin . A 500 mL three-necked flask was equipped with a reflux condenser, a thermometer, and a stirrer for the reaction process. During the reaction, 100 g of sodium acetate was mixed with 100 g of epichlorohydrin, and the reaction was stirred for 3 hours at a temperature of 105-110 o C. The resulting mixture was washed several times in water to dissolve water-soluble substances and dried at a temperature of 50-60 o C. The yield of the product was 82%.

The ratio of starting materials, the effect of temperature on the reaction yield, and the effect of time on the reaction yield were studied in the preparation of organic ethers using the interaction of sodium acetate and epichlorohydrin.



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1. Effect of time on reaction yield in the preparation of organic esters using the interaction of sodium acetate and epichlorohydrin .

It can be seen from Figure 1 that in obtaining organic esters. When sodium acetate and epichlorohydrin were taken in a ratio of 1:1, the highest yield of the reaction was 89 % , and it can be seen that the yield was obtained for 3 hours. The dependence of temperature on the yield of organic esters that increase the octane number of E -3 gasoline fuels was studied in Fig. 2.

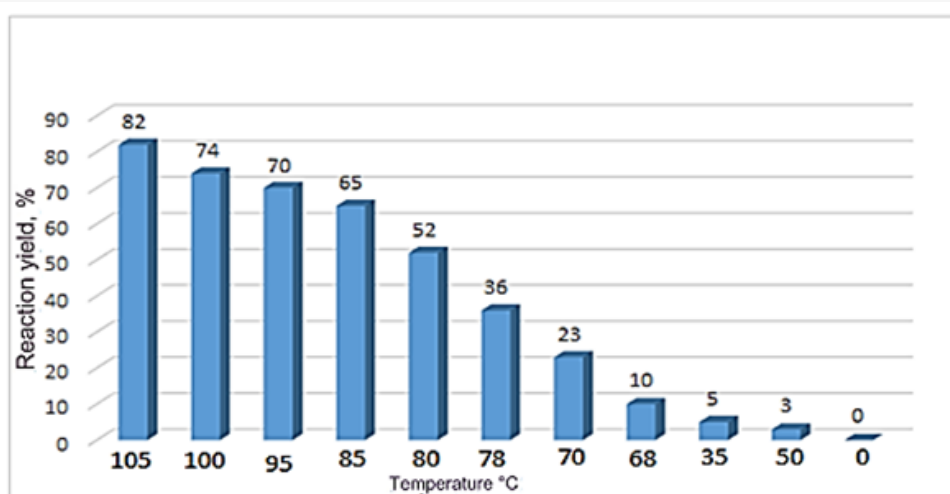


Figure 2. The effect of temperature on the reaction yield in the preparation of organic esters using the interaction of sodium acetate and epichlorohydrin.

In Fig. 2, the dependence of temperature on the reaction yield in obtaining organic esters that increase the octane number of E -3 gasoline fuels was studied. It can be seen that the reaction yield reached 82% when the temperature was increased from 50 o C to 105 o C. At higher temperatures, the reaction yield decreased again . It was found that organic ethers that increase the octane number of E - 3 gasoline fuels have the highest productivity and efficiency .



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