

Investigation of synthesized zeolite on the regeneration of used motoric oils.

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Zeolites are crystalline substances characterized by a three-dimensional, porous structure [1]. Their physic-chemical properties including ion-exchange capacity, sorption, or catalytic activity are attributed to their structure [2]. In this study, bentonite-embedded zeolites and activated mixtures are used to investigate their efficiency on used lubricating oil treatment and purification. Lubricating oils are used to reduce friction between car engine parts (UMO) [3]. The used oil for 15000-20000km was treated with zeolite and zeolite, activated carbon, and untreated or treated bentonite mixture. The physic-chemical parameters of the used motor oil (UMO) carried out before and after treatment are density, kinematics viscosity, viscosity index and pour points. It was observed that the values of treated oil compared to those of untreated oil were highly improved.

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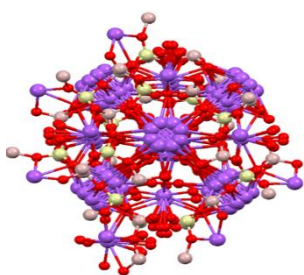


Figure 1. Crystalline structure of zeolite type X.