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Application of modified porous glasses Al_2O_3 for hydrocarbon contamination sorption

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Keywords

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Abstract

Tests on glass texture were made in order to establish the size of porous space in modified glasses Al_2O_3 from the system $Na_2O-B_2O_3-SiO_2$ after extraction of dissolved boron phase during chemical treatment. A difference was observed in the size and volume of mezo- and micropores in 0.6% and 0.3% Al_2O_3 glasses depending on temperature of heating. Accounting for the difference of glass structure attempts were made to use them for the selective sorption of hydrocarbons dissolved in water. It follows from the obtained results that differences in hydrocarbon removal are as much as tens of percent. The efficiency of removal is conditioned by the type of glass and grain size of glass applied for sorption.



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