

Subject area: Development of solid-acid catalyst alkylation of isobutane by olefins. Part. 1.

The design of zeolites catalysts of alkylation of isobutane by olefins

© **Rishat R. Shiryazdanov**,^{1*+} and **Yevgeny A. Nikolaev**²⁺

¹ Faculty of technologies of oil and gas. Ufa State petroleum technical university. Kosmonavtov St., 1. Ufa, 450062. Republic Bashkortostan. Russia. Phone: +7 (347) 243-15-35. E-mail: petroleum9@bk.ru

² Faculty «Equipment of petrochemical factories». Branch of the Ufa state petroleum technical university in Sterlitamak. Prospect October, 2. Sterlitamak, 453118. Republic Bashkortostan. Russia.

Phone: +7 (3473) 29-11-30. E-mail: nikevan@rambler.ru

*Supervising author; +Corresponding author

Keywords: alkylation, zeolite, isobutane, olefins.

Abstract

For solid-acid alkylation of isobutane by olefins based on modification (decationated, dealuminizing, ion exchange) there have been synthesized zeolite catalysts – ultrastable zeolites of type Y in the polycation-decated form, which can display high catalytic activity and stability in manufacturing alkylate.