

Catalytic reutilization of chromium-loaded NaY – oxidation of ethyl acetate

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The aim of this study is the reutilization of new materials obtained by biorecovery of chromium from water, in catalytic oxidations of volatile organic compounds. A biosorption system consisting of a microorganism supported on a NaY zeolite was used to remove hexavalent chromium from contaminated water. After the biosorption process, the chromium-loaded zeolite was used as catalyst to be applied in catalytic oxidation of ethyl acetate. The results showed that a higher content of chromium enhanced the activity and the CO₂ selectivity of the catalyst.

Keywords: VOCs, Oxidation, Chromium, Zeolite