conversion reaction of some cyclic organic hydrocarbons using heterogeneous catalysts

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Shape selective catalysts have been prepared for the disproportionation of toluene produce xylenes and benzene via abimolecular transfer of ameth1 group from one luene molecule to anther the catalysts prepared include H- ZSM-5 zeolite aswell as versions treated with silicon containing material . also , H- ZSM-5 zeolite has been ealuminated to varying extents then further treated with the silicon izing material .Silicon precipitated in the internal surface of the zeolitic channals of H-ZSM-5 2 sults in adecrease of the channals diameter such that para-xy lene production is nhanced compared to the ortho and meta isomers of xylene . Dealumination of Zeolite causes cleaning of the internal surface of the channals rid enhances the catalytic activity via increasing the strength of the acid sites . Afuther eatment of the dealuminated zeolite gives promising catalysts for the isproportionation process -. Examination of H-MOR for siliconization has given asimilar effect as in the case fH ZSM-5.