Propylene epoxidation using Ti-MCM-22 zeolite catalysts

반한주, 안화승*
인하대학교
(whasahn@inha.ac.kr*)

Propylene epoxidation by H_2O_2 (30 % aqueous) as oxidant was studied in a semi-batch reactor using Ti-MCM-22 catalyst : Effects of reaction temperature, pressure, solvent, catalyst loading and H_2O_2 concentration on H_2O_2 conversion(limiting reagent) and product distribution were investigated. Potential inhibition by propylene oxide on the epoxidation rate was also examined. Ti-MCM-22 in acetonitrile performed better than TS-1 in methanol with virtually 100% conversion without any byproduct formation.