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(54) Title: IMPROVED EPOXIDATION PROCESS

(57) Abstract

The selectivity of an olefin epoxidation process catalyzed by a titanium–containing zeolite is improved by performing the epoxidation in the presence of a non–ionic tertiary amine or tertiary amine oxide additive. For example, when hydrogen peroxide is reacted with propylene in the presence of TS–1 titanium silicalite to form propylene oxide, non–selective ring–opening reactions of the propylene oxide are suppressed when low concentrations of 2,6–lutidine or other substituted pyridines are added to the hydrogen peroxide feed.