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(54) Title: DIRECT EPOXIDATION PROCESS USING A MIXED CATALYST SYSTEM

(57) Abstract: The liquid-phase epoxidation reaction of an olefin with hydrogen and oxygen in the presence of a catalyst mixture containing a titanium zeolite and a supported catalyst surprisingly produces less ring-opened products such as glycols when performed in the presence of a buffer. This is particularly surprising because a typical palladium on titanium zeolite catalyst is little effected by the presence of a buffer. Surprisingly, the use of a buffer also typically improves the activity of the process.



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