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(54) Title: PROCESS FOR THE PRODUCTION OF ETHERS, THYPLICALLY THF

(57) **Abstract:** A process is described for the production of ethers, typically tetrahydrofuran, by reaction of a corresponding organic feed material selected from dicarboxylic acids and/or anhydrides, monoesters of dicarboxylic acids and/or anhydrides, diesters of dicarboxylic acids and/or anhydrides, lactones, and mixtures of two or more thereof in the presence of hydrogen which comprises the steps of: (a) supplying a stream comprising the organic feed material to a first vaporisation zone and contacting said feed with cycle gas comprising hydrogen such that at least a portion of the feed material is vaporised by and into the cycle gas; (b) supplying at least a portion of the cycle gas and the vaporised feed material to a first reaction zone comprising catalyst and operating under reaction conditions to allow hydrogenation and dehydration to occur; (c) recovering from the first reaction zone an intermediate product stream comprising unreacted feed material, cycle gas, desired product(s), and any co-products and by-products; (d) supplying the intermediate product stream to a second vaporisation zone and contacting it with additional feed material such that the said additional feed material is vaporised by and into the intermediate product stream; (e) supplying the product of step (d) to a subsequent reaction zone comprising catalyst and operating under reaction conditions to allow hydrogenation and, if required, dehydration to occur; and (f) recovering from the subsequent reaction zone a product stream comprising the ether.



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