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(54) Title: A PROCESS FOR PREPARING 1,2-PROPANEDIOL FROM PROPANE

(57) Abstract: The process for preparing 1,2-propanediol comprises a step of dehydrogenating propane to provide a product stream comprising propane, propene and hydrogen; separation steps separating the product stream into a stream consisting essentially of hydrogen, a stream enriched in propane and a stream enriched in propene; a step of reacting the stream consisting essentially of hydrogen with oxygen to provide a stream comprising hydrogen peroxide; a step of reacting the stream enriched in propene with the stream comprising hydrogen peroxide in the presence of a catalyst mixture comprising a phase transfer catalyst and a heteropolytungstate in a reaction mixture with two liquid phases; and steps of separating the reaction mixture of the propene oxidation into an aqueous phase and an organic phase, recycling the organic phase to the propene oxidation and separating 1,2-propanediol from the aqueous phase.