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ACTION

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(54) Title: DIRECT SYNTHESIS OF HYDROGEN PEROXIDE IN A MULTICOMPONENT SOLVENT SYSTEM

(57) Abstract: A process is described for the production of hydrogen peroxide from hydrogen and oxygen in a reaction solvent containing a halogenated promoter and/or an acid promoter, in the presence of a heterogeneous catalyst based on one or more metals of the platinum group, wherein the reaction solvent consists of: (1) an alcohol or mixture of alcohols; (2) an aliphatic ether having general formula (I); and (3) optionally water. The solvent mixture may also contain one or more C₅-C₃₂ hydrocarbons. The process operates under high safety conditions with a high productivity and molar selectivity towards the formation of H₂O₂.