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(54) Title: A METHOD FOR THE PREPARATION OF 1,2-PROPANEDIOL

(57) Abstract: A method for preparing 1,2-propanediol by the steps of (a) continuously reacting propene with hydrogen peroxide in the presence of a catalyst mixture comprising a quaternary ammonium salt and a polytungstophosphate in a liquid reaction mixture comprising an aqueous phase with a maximum apparent pH of 6 and an organic phase comprising an alkylaromatic hydrocarbon solvent, (b) withdrawing liquid reaction mixture from step a) and adding a water-soluble sulfate salt or sulfuric acid to provide a mixture comprising from 500 to 10,000 mg/kg of sulfate ions in the aqueous phase, (c) separating the mixture obtained in step b) into an aqueous phase (P_a) comprising 1,2-propanediol and an organic phase (P_o), (d) recycling at least a part of the organic phase (P_o) to the reaction step a) and (e) recovering 1,2-propanediol from the aqueous phase (P_a) allows extended operation of the reaction with little loss of tungsten and phase transfer catalyst.



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