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

(57) Abstract: The method for preparing 1,2-propanediol comprises the steps (a) reacting propene with hydrogen peroxide in the presence of a phase transfer catalyst and a heteropolytungstate in a liquid reaction mixture comprising an aqueous phase with a maximum apparent pH of 6 and an organic phase comprising a solvent having a solubility in water at 20 °C of less than 500 mg/kg; (b) separating the liquid reaction mixture of step a) into an aqueous phase comprising 1,2-propanediol and an organic phase; (c) recycling at least a part of the separated organic phase to step a); (d) extracting the separated aqueous phase with an extractant solution comprising the same phase transfer catalyst and solvent as used in step a) to provide an extracted aqueous phase and an extract phase; (e) recycling at least a part of the extract phase to step a); and (f) recovering 1,2-propanediol from the extracted aqueous phase.



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