

Abstract

Hydrogen peroxide is produced by reacting hydrogen and oxygen in the presence of a noble metal catalyst in a liquid reaction medium, the reaction being performed in the presence of a sulfuric acid alkyl ester. In the presence of sulfuric acid alkyl esters the noble metal catalyst exhibits a high and lasting activity for the formation of hydrogen peroxide with an elevated selectivity of hydrogen peroxide formation relative to the hydrogen used. Solutions of hydrogen peroxide in methanol obtainable by the process are suitable for use for the epoxidation of olefins.