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PROCESS FOR PRODUCING ISOPROPYL ALCOHOL

ABSTRACT OF THE DISCLOSURE

A process for producing isopropyl alcohol by direct liquid phase hydration of propylene and water in the presence of a strong acid solid catalyst at a high temperature and a high pressure, wherein the reaction is carried out at a temperature in a ranging between 100° and 250°C and a pressure in a ranging between 60 and 200 atm in an excess of water. Then, a liquid phase of the reaction product is contacted with an extraction agent of a saturated hydrocarbon having 3 or 4 carbon atoms at a temperature in a ranging between the critical temperature of the extraction agent and the temperature higher than the critical temperature by 40°C under a pressure ranging between the critical pressure of the extraction agent and 200 atm at an S/F ratio ranging between 0.3 and 3, which is calculated from the equation of the amount of the extraction agent divided by the amount of the extract feed. Finally, after isopropyl alcohol is extracted from the liquid phase, it is separated from the resultant extract phase thus obtained. According to this process, the energy required for concentrating isopropyl alcohol is reduced, and also large-scale production facilities are not necessary.

FIG. 1



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