

ABSTRACT

PROCESS FOR THE PRODUCTION OF PHENOL

The improved process for producing phenol, acetone and α -methylstyrene in the cumene-phenol process comprising cumene hydroperoxide, cumene and dimethylphenylcarbinol in the presence of sulfuric acid has the steps of decomposing the cumene hydroperoxide in a back mixing reactor with the yield of α -methylstyrene as produced from dimethylphenylcarbinol being controlled and the step of forming α -methylstyrene in such a way that the reaction mixture produced in the first step is supplied into a plug-flow reactor after acetone is added to said reaction mixture. The process is capable of consistent production of phenol and α -methylstyrene in high yields under mild reaction conditions.