

ABSTRACT OF THE DISCLOSURE

PROCESS FOR PRODUCING CYCLOHEXANONE OXIME

The present invention is directed to provide a process which is able to suppress a catalyst cost as low as possible and maintain a conversion ratio of cyclohexanone and a selectivity of cyclohexanone oxime in an ammoximation reaction of cyclohexanone so as to produce cyclohexanone oxime with good productivity over a long period.

To a process for producing cyclohexanone oxime by continuously reacting cyclohexanone, hydrogen peroxide and ammonia in the presence of a titanasilicate catalyst, a multistep operating condition is applied; the first operation step for adding a titanasilicate catalyst to a reaction mixture to raise a concentration of the titanasilicate catalyst in the reaction mixture, and the second operation step for taking out the titanasilicate catalyst from the reaction mixture and adding a titanasilicate catalyst to the reaction mixture to keep a concentration of the titanasilicate catalyst in the reaction mixture in a predetermined range.