

Improve the Reaction Efficiency in Synthesis 1, 4-ButaneDiol (BDO) by Nano Copper Chromite Catalyst

Abstract

The new coupling process of the dehydrogenation of 1, 4-butanediol (BDO) and the hydrogenation of furfural (FFA) over a Nano copper chromite catalyst was carried out in a continuous fixed-bed reactor. The effects of the reaction conditions on the coupling process were investigated in detail. The results show that the coupling process has some advantages over the individual dehydrogenation and hydrogenation ones, such as optimal hydrogen utilization, good energy efficiency, improved yield and mild reaction condition.