

ABSTRACT

CATALYST FOR ISOBUTYLENE PRODUCTION AND METHOD FOR PRODUCING ISOBUTYLENE

Provided are: a catalyst for dehydration, with which isobutylene is able to be produced with high conversion and high selectivity through a dehydration reaction of isobutanol; and a method for producing isobutylene. This catalyst has a BET specific surface area within the range of from 210 m²/g to 350 m²/g (inclusive) as calculated from N₂ adsorption/desorption isotherms. It is preferable that this catalyst is formed of at least one substance selected from among alumina, silica alumina, zeolite, and solid phosphoric acid. It is more preferable that this catalyst contains alumina, and it is especially preferable that this catalyst is formed of alumina. In this method for producing isobutylene, the isobutanol concentration in the starting material gas is preferably 20% by volume or more, more preferably 40% by volume or more, and especially preferably 60% by volume or more. In addition, the temperature of a catalyst layer is preferably from 230°C to 370°C (inclusive), and more preferably from 240°C to 360°C (inclusive).

Fig. 1