

METHOD FOR PRODUCING METHACRYLIC ACID ESTER

ABSTRACT

The method for producing a methacrylic acid ester of the present invention comprises a dehydration reaction step of having acetone undergo a dehydration reaction in the presence of a dehydration reaction catalyst to obtain a reaction mixture; a propyne/propadiene separation step of separating a mixture containing propyne and propadiene as main components from the obtained reaction mixture; a propyne purification step of separating the separated mixture containing propyne and propadiene as main components into a liquid, gas, or gas-liquid mixture containing propyne as a main component, and a liquid, gas, or gas-liquid mixture containing propadiene as a main component; and a carbonylation reaction step of bringing the obtained liquid, gas, or gas-liquid mixture containing propyne as a main component into contact with carbon monoxide and an alcohol having 1 to 3 carbon atoms in the presence of a catalyst containing at least one selected from the group consisting of Group 8 metal elements, Group 9 metal elements, and Group 10 metal elements to obtain a methacrylic acid ester. According to the method of the present invention, it is possible to provide a method for producing a methacrylic acid ester, which is less likely to receive location restrictions and is also economically and industrially advantageous.

Fig. 1