

METHOD FOR PRODUCING METHACROLEIN AND/OR METHACRYLIC ACID,
AND METHOD FOR PRODUCING METHACRYLIC ACID ESTER

ABSTRACT

An object is to provide a method for producing methacrolein and/or methacrylic acid from isobutanol, in which methacrolein and/or methacrylic acid are/is obtained at high selectivity with suppressed generation of a by-product, and a method for producing methacrylic acid ester from the methacrylic acid obtained. The object is achieved by a method for producing methacrolein and/or methacrylic acid, including (i) a step of feeding an isobutanol-containing gas to a dehydration catalyst layer, to produce an isobutylene-containing gas 1 by dehydration reaction of isobutanol, and (ii) a step of feeding an isobutylene-containing gas 2 containing at least one portion of the isobutylene-containing gas 1, and an oxygen-containing gas to an oxidation catalyst layer, to produce methacrolein and/or methacrylic acid by oxidation reaction of isobutylene, in which x_1/x_2 is 0.4 or more when the content rate of isobutylene in the isobutylene-containing gas 1 is x_1 (% by mol) and the content rate of isobutylene in the isobutylene-containing gas 2 is x_2 (% by mol).
(No figure.)