

ABSTRACT OF THE DISCLOSURE

PROCESS FOR PREPARING UNSATURATED ALDEHYDE AND UNSATURATED
CARBOXYLIC ACID

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A process for preparing an unsaturated aldehyde and an unsaturated carboxylic acid by supplying propylene, isobutylene and/or tert.-butyl alcohol together with molecular oxygen in a reactor tube packed with mixed oxide catalysts and performing a catalytic oxidation reaction in a gas phase in the reactor tube, in which the reactor tube is packed with plural mixed oxide catalysts having different catalytic activities which are heated in the presence of a reducing compound, or packed with a mixed oxide catalyst which is heated in the presence of a reducing compound and a mixed oxide catalyst which is not heated in the presence of a reducing compound, such that the catalytic activities of the catalysts increase from an inlet for a raw material gas to an outlet of the reactor tube.

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