

ABSTRACT

Provided is a method of subjecting an alkene to partial oxidation by using a fixed bed multitubular reactor, thereby producing an unsaturated aldehyde and/or an unsaturated
5 carboxylic acid each corresponding to the alkene, wherein a plurality of catalyst layers formed by N division (N is $N \geq 2$) with respect to a gas flow direction of a reaction tube are provided, and when a change ($^{\circ}\text{C}$) of hot spot temperature per 1°C change of reaction bath temperature in the catalyst layer is designated as S_n , at least one of the plurality of catalyst layers is regulated to $S_n \leq 6$.