

ABSTRACT

A method for supplying reaction gases in which at least a material to be oxidized and a gas containing molecular oxygen are mixed and the resultant mixture is supplied to a catalytic gas-phase oxidation reactor, characterized in that,

5 a feed rate of the material to be oxidized and a feed rate of the gas containing molecular oxygen are adjusted so that when a composition of a gas at the inlet of the catalytic gas-phase oxidation reactor is changed from a composition A point [the concentration of the material to be oxidized: $R(a)$, and the concentration of oxygen: $O(a)$] represented by plotting a concentration of the material to

10 be oxidized and a concentration of oxygen in the gas at said inlet to a composition B point [$R(b)$ and $O(b)$] [the composition A point and the composition B point are compositions outside an explosion range, and $R(a) \neq R(b)$ and $O(a) \neq O(b)$], compositions on the way of the change from the composition A point to the composition B point fall outside the explosion range.