

Abstract

The invention relates to a process for producing a catalyst for gas-phase oxidations, which comprises weighing a particulate inert support having a total mass of M_{support} into a fluidized-bed apparatus, providing an aqueous suspension of a catalytically active material or sources therefor and a binder having a binder content of B_{susp} , fluidizing the inert support by introduction of a gas stream heated to a temperature of T_{gas} at a flow rate of Q_{gas} , and spraying the suspension at a rate of Q_{susp} onto the fluidized inert support. When Q_{gas} , Q_{susp} , B_{susp} , M_{support} and T_{gas} are selected within the ranges

$$\begin{array}{ll} 3000 \leq Q_{\text{gas}} [\text{m}^3/\text{h}] \leq 9000, & 1000 \leq Q_{\text{susp}} [\text{g}/\text{min}] \leq 3500, \\ 2 \leq B_{\text{susp}} [\% \text{ by weight}] \leq 18, & 60 \leq M_{\text{support}} [\text{kg}] \leq 240, \\ 75 \leq T_{\text{gas}} [^\circ\text{C}] \leq 120 \end{array}$$

so that a parameter K defined as

$$K = 0.020 Q_{\text{gas}} - 0.055 Q_{\text{susp}} + 7.500 B_{\text{susp}} - 0.667 M_{\text{support}} + 2.069 T_{\text{gas}} - 7$$

satisfies the relationship $127.5 \leq K \leq 202$, high-quality coatings can be produced and the formation of twins made up of support particles adhering to one another can be avoided.