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ABSTRACT

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**METHOD FOR MANUFACTURING HIGHLY-CRYSTALLIZED OXIDE
POWDER**

A method for manufacturing a highly-crystallized oxide powder, wherein an oxide powder is produced by ejecting a starting material powder comprising at least one metal element and/or semimetal element, which will become a constituent component of the oxide, into a reaction vessel together with a carrier gas through a nozzle; and heating the starting material powder at a temperature higher than the decomposition temperature or reaction temperature thereof and not lower than $(T_m/2)^{\circ}\text{C}$, where $T_m^{\circ}\text{C}$ stands for a melting point of the oxide, in a state in which the starting material powder is dispersed in a gas phase at a concentration of not higher than 10 g/L. In the above method, the starting material powder may be mixed and dispersed in the carrier gas by using a dispersing machine prior to being ejected into the reaction vessel through a nozzle. The resultant oxide powder has a high crystallinity, a high dispersibility, and a uniform particle size, without introducing impurities thereinto, by a low-cost and simple production equipment.

(No figure for publication)