



Abstract

A process for producing a titanium-containing silicon oxide catalyst, which comprises the following steps and satisfies the following conditions:

(1): an average pore diameter of 10Å or more,

(2): a pore diameter of 90% or more of the total pore volume of 5 to 200Å,

(3): a specific pore volume of 0.2 cm^3/g or more, and

(4): a quaternary ammonium ion represented by the following general formula (I) is used as the template and then the template is removed by solvent extraction, and

$$[NR^1R^2R^3R^4]^+ \qquad (I)$$

(wherein, R^1 represents a linear or branched hydrocarbon chain having 2 to 36 carbon atoms, and R^2 to R^4 represent an alkyl group having 1 to 6 carbon atoms);

first step: a step for obtaining a solid containing a catalyst component and a template by mixing and stirring a silica source, a titanium source and a template in liquid phase,

second step: a step of drying the solid obtained in the first step under a condition of a temperature of 120℃ or less, and

third step: a step of removing the template by subjecting the solid dried in the second step to solvent extraction.