



ABSTRACT

A titanium-containing silicon oxide molded catalyst satisfying all of the following conditions (1) to (4):

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

(2) 90% or more of the whole pore volume have pore diameters of 5 to 200 Å,

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

(4) it is obtained by using as a template a quaternary ammonium ion of the following general formula (I) or an amine of the following general formula (II), then, removing the template.

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

(in the formula (I), R^1 represents a linear or branched hydrocarbon group having 2 to 36 carbon atoms, and R^2 to R^4 represent an alkyl group having 1 to 6 carbon atoms.)

$NR^5R^6R^7$ (II)

(in the formula (II), R^5 represents a linear or branched hydrocarbon group having 2 to 36 carbon atoms, and R^6 and R^7 represent hydrogen or an alkyl group having 1 to 6 carbon atoms.).