

Multi-step method for producing titanium dioxide**Abstract**

The invention relates to the production of titanium dioxide by oxidating titanium tetrachloride in a multi-step method, wherein oxygen and titanium tetrachloride are dosed in several steps. In the first step, gaseous TiCl_4 is introduced stoichiometrically or hyperstoichiometrically into a preheated oxygen-containing gas flow in order to produce a TiO_2 containing gas suspension. In the second or other steps liquid TiCl_4 and oxygen-containing gas are introduced into the TiO_2 containing gas suspension in order to produce additional TiO_2 .

In one embodiment of the invention TiCl_4 and oxygen-containing gas are added at a temperature of under about 50 °C in the second or other steps.

Said invention is energy saving compared to other known methods known from the prior art.