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(54) Title: PROCESS FOR MAKING TITANIUM DIOXIDE

(57) Abstract: An improved process for producing titanium dioxide by reacting a titanium dioxide ore with chlorine to produce a gaseous stream containing titanium tetrachloride, condensing titanium tetrachloride from the gaseous stream containing titanium tetrachloride to produce chlorinator tail gas, vaporizing the condensed titanium tetrachloride, reacting the vaporized titanium tetrachloride with oxygen to produce a gaseous stream containing titanium dioxide particles and chlorine, separating the titanium dioxide particles from the gaseous stream containing titanium dioxide particles and chlorine to produce burner tail gas, and analyzing the chlorinator tail gas for residual chlorine to control the step of reacting the titanium dioxide ore with chlorine and/or analyzing the burner tail gas for oxygen to control the step of reacting the condensed titanium tetrachloride with oxygen. The improvement is to analyze the chlorinator tail gas for residual chlorine (and/or the burner tail gas for oxygen) using an on-line analyzer.



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