

Title (en)
CARBON-CONTAINING, TITANIUM DIOXIDE-BASED PHOTOCATALYST, AND PROCESS FOR PRODUCING THE SAME

Title (de)
KOHLENSTOFFHALTIGER TITANDIOXID-PHOTOKATALYSATOR UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
PHOTOCATALYSEUR A BASE DE DIOXYDE DE TITANE, RENFERMANT DU CARBONE, ET SON PROCEDE DE PRODUCTION

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Application
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Abstract (en)
[origin: US2005227854A1] The invention relates to a titanium dioxide-based photocatalyst containing carbon that is highly photoactive in visible light (vlp-TiO₂) and to a method of manufacture. The vlp-TiO₂ is manufactured by mixing a fine grained titanium compound (BET>=50 m²/g) with an organic carbon compound and subsequent thermal treatment at temperatures up to 350° C. The carbon content amounts to 0.05 to 4% by weight, preferably 0.4 to 0.8% by weight. The product is characterized by an ESR spectrum which displays only one significant signal in the g value range from 1.97 to 2.05 at g about 2.003. The inventive photocatalyst can be used for to degrade contaminants and pollutants in liquids and gases.

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