

Title (en)

COPPER ION-MODIFIED TITANIUM OXIDE AND PROCESS FOR PRODUCING THE SAME, AND PHOTOCATALYST

Title (de)

KUPFERIONEN-MODIFIZIERTES TITANOXID, HERSTELLUNGSVERFAHREN DAFÜR UND PHOTOKATALYSATOR

Title (fr)

OXYDE DE TITANE MODIFIÉ PAR UN ION DU CUIVRE ET SON PROCÉDÉ DE PRODUCTION ET PHOTOCATALYSEUR

Publication

EP 2485838 A2 20120815 (EN)

Application

EP 10807495 A 20101008

Priority

- JP 2009234370 A 20091008
- JP 2010068223 W 20101008

Abstract (en)

[origin: WO2011043496A2] The present invention relates to a copper ion-modified titanium oxide including titanium oxide whose surface is modified with a copper ion, and containing a brookite-type crystal; a process for producing a copper ion-modified titanium oxide, including a hydrolysis step of subjecting a titanium compound capable of producing titanium oxide to hydrolysis in a reaction solution, and a surface modification step of mixing a solution obtained after the hydrolysis with an aqueous solution containing a copper ion to modify a surface of the titanium oxide therewith; and a photocatalyst containing the copper ion-modified titanium oxide in an amount of 70% by mass or more.

IPC 8 full level

B01J 23/72 (2006.01)

CPC (source: EP KR)

B01J 21/063 (2013.01 - EP); **B01J 23/72** (2013.01 - EP KR); **B01J 35/30** (2024.01 - EP); **B01J 35/39** (2024.01 - EP); **B01J 35/393** (2024.01 - EP); **B01J 37/033** (2013.01 - EP); **B01J 37/34** (2013.01 - KR); **B82Y 30/00** (2013.01 - EP); **C01G 23/00** (2013.01 - EP); **C01G 23/04** (2013.01 - KR); **C01G 23/047** (2013.01 - EP); **C01P 2002/52** (2013.01 - EP); **C01P 2002/72** (2013.01 - EP); **C01P 2002/77** (2013.01 - EP); **C01P 2004/64** (2013.01 - EP)

Citation (search report)

See references of WO 2011043496A2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2011043496 A2 20110414; **WO 2011043496 A3 20120105**; CN 102574107 A 20120711; EP 2485838 A2 20120815; JP 2011079713 A 20110421; KR 20120095855 A 20120829; TW 201129508 A 20110901

DOCDB simple family (application)

JP 2010068223 W 20101008; CN 201080044457 A 20101008; EP 10807495 A 20101008; JP 2009234370 A 20091008; KR 20127008812 A 20101008; TW 99134398 A 20101008