

Title (en)

MULTIVALENCE PHOTOCATALYTIC HETEROGENEOUS MATERIALS FOR SEMICONDUCTORS

Title (de)

MULTIVALENTE HETEROGENE FOTOKATALYTISCHE MATERIALIEN FÜR HALBLEITER

Title (fr)

MATÉRIAUX HÉTÉROGÈNES PHOTOCATALYTIQUES MULTIVALENTS POUR SEMI-CONDUCTEURS

Publication

EP 2969186 A1 20160120 (EN)

Application

EP 14720807 A 20140313

Priority

- US 201313840859 A 20130315
- US 201361835399 P 20130614
- US 2014026580 W 20140313

Abstract (en)

[origin: WO2014151861A1] Described herein are heterogeneous materials comprising a p-type semiconductor comprising two metal oxide compounds of the same metal in two different oxidation states and an n-type semiconductor having a deeper valence band than the p-type semiconductor valence bands wherein the semiconductor types are in ionic communication with each other. The heterogeneous materials enhance photocatalytic activity.

IPC 8 full level

B01J 23/00 (2006.01); **B01J 23/72** (2006.01); **H01L 31/0264** (2006.01)

CPC (source: EP)

B01J 23/007 (2013.01); **B01J 23/72** (2013.01)

Citation (search report)

See references of WO 2014151861A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2014151861 A1 20140925; CN 105163847 A 20151216; CN 105163847 B 20180403; EP 2969186 A1 20160120; JP 2016512164 A 20160425; JP 6462658 B2 20190130; TW 201500112 A 20150101; TW I633932 B 20180901

DOCDB simple family (application)

US 2014026580 W 20140313; CN 201480017897 A 20140313; EP 14720807 A 20140313; JP 2016502184 A 20140313; TW 103109809 A 20140314