

Title (en)
THERMOLABILE PRECURSOR COMPOUNDS FOR IMPROVING THE INTERPARTICULATE CONTACT POINTS AND FOR FILLING THE INTERSPACES IN SEMICONDUCTIVE METAL OXIDE PARTICLE LAYERS

Title (de)
THERMOLABILE VORLÄUFER-VERBINDUNGEN ZUR VERBESSERUNG DER INTERPARTIKULÄREN KONTAKTSTELLEN UND ZUM AUFFÜLLEN DER ZWISCHENRÄUME IN HALBLEITENDEN METALLOXIDPARTIKELSCHICHTEN

Title (fr)
COMPOSÉS PRÉCURSEURS THERMOLABILES PERMETTANT D'AMÉLIORER LES POINTS DE CONTACT INTERPARTICULAIRES ET DE REMPLIR LES ESPACES INTERMÉDIAIRES DANS DES COUCHES DE PARTICULES D'OXYDE MÉTALLIQUE SEMI-CONDUCTRICES

Publication
EP 2443650 A1 20120425 (DE)

Application
EP 10725447 A 20100615

Priority
• EP 2010058391 W 20100615
• EP 09162783 A 20090616
• EP 10725447 A 20100615

Abstract (en)
[origin: WO2010146053A1] The present invention relates to a method for producing a layer containing at least one semiconductive metal oxide on a substrate, comprising at least the following steps: (A) a porous layer comprising at least one semiconductive metal oxide is applied to a substrate, (B) the porous layer from step (A) is treated with a solution containing at least one precursor compound of the semiconductive metal oxide, so that the pores of the porous layer are at least partially filled with this solution, and (C) the layer obtained in step (B) is heat-treated in order to convert at least one precursor compound of the semiconductive metal oxide into the semiconductive metal oxide, wherein the at least one precursor compound of the at least one semiconductive metal oxide is selected in step (B) from the group comprising carboxylates of monocarboxylic acids, dicarboxylic acids or polycarboxylic acids with at least three carbon atoms or derivatives of monocarboxylic acids, dicarboxylic acids or polycarboxylic acids, alcoholates, hydroxides, semicarbazides, carbamates, hydroxamates, isocyanates, amidines, amidrazones, urea derivatives, hydroxylamines, oximes, oximates, urethanes, ammonia, amines, phosphines, ammonium compounds, nitrates, nitrides or azides of the relevant metal and mixtures thereof.

IPC 8 full level
H01L 21/02 (2006.01); **H01L 21/368** (2006.01)

CPC (source: EP KR US)
H01L 21/02422 (2013.01 - EP KR US); **H01L 21/02554** (2013.01 - EP KR US); **H01L 21/02565** (2013.01 - EP KR US);
H01L 21/02573 (2013.01 - EP KR US); **H01L 21/02601** (2013.01 - EP KR US); **H01L 21/02628** (2013.01 - EP KR US)

Citation (search report)
See references of WO 2010146053A1

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 SE SI SK SM TR

DOCDB simple family (publication)
WO 2010146053 A1 20101223; CN 102460641 A 20120516; EP 2443650 A1 20120425; JP 2012530033 A 20121129; JP 5634511 B2 20141203; KR 20120039638 A 20120425; US 2012086002 A1 20120412; US 9129801 B2 20150908

DOCDB simple family (application)
EP 2010058391 W 20100615; CN 201080026778 A 20100615; EP 10725447 A 20100615; JP 2012515463 A 20100615; KR 20127001172 A 20100615; US 201013378765 A 20100615