

Title (en)

BARRIER LAYER SYSTEM AND METHOD FOR PRODUCING A BARRIER LAYER SYSTEM

Title (de)

BARRIERESCHICHTSYSTEM UND VERFAHREN ZUM HERSTELLEN EINES BARRIERESCHICHTSYSTEMS

Title (fr)

SYSTÈME DE COUCHES BARRIÈRES ET PROCÉDÉ DE FABRICATION D'UN SYSTÈME DE COUCHES BARRIÈRES

Publication

**EP 4127261 A1 20230208 (DE)**

Application

**EP 21715230 A 20210325**

Priority

- DE 102020108362 A 20200326
- EP 2021057852 W 20210325

Abstract (en)

[origin: WO2021191398A1] The invention relates to a barrier layer system having barrier properties with respect to oxygen and water vapour and to a method for producing a layer system which has barrier properties with respect to oxygen and water vapour, said method having the following method steps: a) forming an alternating layer system consisting of at least two aluminium oxide layers (12; 22; 32) and at least two titanium oxide layers (13; 23; 33), in which the aluminium oxide layers (12; 22; 32) and the titanium oxide layers (13; 23; 33) are deposited one on top of the other in alternation; b) wherein the aluminium oxide layers (12; 22, 32) and the titanium oxide layers (13; 23; 33) are deposited by means of ALD and in each case with a layer thickness of 5 nm to 20 nm; c) depositing a first parylene layer (14; 24; 34a) with a layer thickness of 0.1 µm to 50 µm on a first side of the alternating layer system by means of CVD.

IPC 8 full level

**C23C 16/01** (2006.01); **B05D 1/00** (2006.01); **C23C 16/02** (2006.01); **C23C 16/40** (2006.01); **C23C 16/455** (2006.01); **C23C 28/00** (2006.01); **C23C 28/04** (2006.01); **H05K 3/28** (2006.01)

CPC (source: EP KR US)

**C23C 16/01** (2013.01 - EP KR); **C23C 16/0272** (2013.01 - EP KR); **C23C 16/403** (2013.01 - EP KR US); **C23C 16/405** (2013.01 - EP KR); **C23C 16/44** (2013.01 - KR); **C23C 16/45525** (2013.01 - US); **C23C 16/45529** (2013.01 - EP); **C23C 16/45555** (2013.01 - EP); **C23C 28/04** (2013.01 - EP); **C23C 28/042** (2013.01 - EP KR); **C23C 28/40** (2013.01 - EP); **C23C 28/42** (2013.01 - EP KR); **C23C 28/44** (2013.01 - EP KR); **B05D 1/60** (2013.01 - EP KR)

Citation (search report)

See references of WO 2021191398A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**DE 102020108362 A1 20210930**; EP 4127261 A1 20230208; KR 20220158784 A 20221201; US 2023077923 A1 20230316; WO 2021191398 A1 20210930

DOCDB simple family (application)

**DE 102020108362 A 20200326**; EP 2021057852 W 20210325; EP 21715230 A 20210325; KR 20227037051 A 20210325; US 202217934863 A 20220923