

Title (en)

LAYER SYSTEM, BIPOLAR PLATE COMPRISING SUCH A LAYER SYSTEM, AND FUEL CELL PRODUCED THEREWITH

Title (de)

SCHICHTSYSTEM, BIPOLARPLATTE MIT EINEM SOLCHEN SCHICHTSYSTEM UND DAMIT GEBILDETE BRENNSTOFFZELLE

Title (fr)

SYSTÈME DE COUCHES, PLAQUE BIPOLAIRE MUNIE DE CE SYSTÈME DE COUCHES ET PILE À COMBUSTIBLE FORMÉE AVEC CE SYSTÈME

Publication

EP 3948996 A1 20220209 (DE)

Application

EP 20708423 A 20200221

Priority

- DE 102019108660 A 20190403
- DE 2020100126 W 20200221

Abstract (en)

[origin: WO2020200353A1] The invention relates to a layer system (1) for coating a bipolar plate (2), comprising at least one cover layer (1a) made of tin oxide, wherein at least one metal oxide of the group comprising tantatalum oxide, niobium oxide, titanium oxide, zirconium oxide, and hafnium oxide is homogenously dissolved in the tin oxide, and the electric conductivity of the cover layer (1a) is greater than or equal to 102 S/cm. The invention additionally relates to a bipolar plate (2, 2') with an anode side and a cathode side, comprising a substrate (2a, 2a') and such a layer system (1), and to a fuel cell (10) or an electrolyzer comprising such a bipolar plate (2, 2').

IPC 8 full level

H01M 8/0217 (2016.01); **C25B 1/04** (2021.01); **H01M 8/0228** (2016.01); **H01M 8/1018** (2016.01)

CPC (source: EP KR US)

C25B 11/032 (2021.01 - US); **C25B 11/036** (2021.01 - US); **C25B 11/069** (2021.01 - US); **H01M 8/0217** (2013.01 - EP KR); **H01M 8/0228** (2013.01 - EP KR); **H01M 8/0236** (2013.01 - US); **H01M 8/0258** (2013.01 - US); **H01M 8/1004** (2013.01 - US); **H01M 8/1018** (2013.01 - US); **H01M 2008/1095** (2013.01 - EP KR US); **Y02E 60/36** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

See references of WO 2020200353A1

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 2020200353 A1 20201008; CN 113491025 A 20211008; DE 102019108660 A1 20201008; EP 3948996 A1 20220209; JP 2022527340 A 20220601; JP 7362768 B2 20231017; KR 20210148090 A 20211207; US 2023231151 A1 20230720

DOCDB simple family (application)

DE 2020100126 W 20200221; CN 202080014289 A 20200221; DE 102019108660 A 20190403; EP 20708423 A 20200221; JP 2021558885 A 20200221; KR 20217027501 A 20200221; US 202017601175 A 20200221