

Title (en)

METHOD FOR PRODUCING A FUNCTIONALLY STRUCTURED ASSEMBLY FOR A FUEL CELL AND MEMBRANE ELECTRODE ARRANGEMENT

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES FUNKTIONALISIERT STRUKTURIERTEN AUFBAUS FÜR EINE BRENNSTOFFZELLE UND MEMBRANELEKTRODENANORDNUNG

Title (fr)

PROCÉDÉ DE PRODUCTION D'ENSEMBLE À STRUCTURE FONCTIONNELLE POUR PILE À COMBUSTIBLE ET ENSEMBLE MEMBRANE-ÉLECTRODE

Publication

EP 4200926 A1 20230628 (DE)

Application

EP 21720203 A 20210415

Priority

- DE 102020127463 A 20201019
- EP 2021059774 W 20210415

Abstract (en)

[origin: WO2022083899A1] The invention relates to a method for producing a functionally structured assembly for a fuel cell (1), comprising the following steps: applying at least one electrode (4, 6) comprising catalyst particles (13) to a substrate layer in a coating step, and introducing a depth structure (16) into an electrode surface facing away from the substrate layer in a beam step by means of laser interference structuring. The invention also relates to a membrane electrode assembly.

IPC 8 full level

H01M 4/88 (2006.01); **H01M 4/90** (2006.01); **H01M 4/92** (2006.01); **H01M 8/1004** (2016.01); **H01M 8/1053** (2016.01)

CPC (source: EP US)

H01M 4/8807 (2013.01 - EP US); **H01M 4/881** (2013.01 - EP); **H01M 4/8814** (2013.01 - EP); **H01M 4/8828** (2013.01 - EP US); **H01M 4/8878** (2013.01 - EP); **H01M 4/8882** (2013.01 - EP US); **H01M 4/9083** (2013.01 - EP); **H01M 4/926** (2013.01 - EP); **H01M 4/96** (2013.01 - US); **H01M 8/1004** (2013.01 - EP); **H01M 8/1053** (2013.01 - EP); **H01M 8/1004** (2013.01 - US); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

See references of WO 2022083899A1

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)

WO 2022083899 A1 20220428; CN 116157938 A 20230523; DE 102020127463 A1 20220421; EP 4200926 A1 20230628; US 2023369607 A1 20231116

DOCDB simple family (application)

EP 2021059774 W 20210415; CN 202180063522 A 20210415; DE 102020127463 A 20201019; EP 21720203 A 20210415; US 202118245524 A 20210415