

Title (en)

ELECTRODE FOR ELECTROLYSIS, AND METHOD FOR PRODUCING ELECTRODE FOR ELECTROLYSIS

Title (de)

ELEKTRODE FÜR ELEKTROLYSE UND VERFAHREN ZUR HERSTELLUNG EINER ELEKTRODE FÜR ELEKTROLYSE

Title (fr)

ÉLECTRODE DESTINÉE À L'ÉLECTROLYSE ET PROCÉDÉ DE PRODUCTION D'ÉLECTRODE DESTINÉE À L'ÉLECTROLYSE

Publication

EP 3960905 A4 20220803 (EN)

Application

EP 20796016 A 20200324

Priority

- JP 2019086733 A 20190426
- JP 2020013021 W 20200324

Abstract (en)

[origin: EP3960905A1] An object is to suppress the separation of a composite layer. An electrically conductive substrate (2) contains at least titanium. An intermediate layer (3) is provided on a primary surface (21) of the electrically conductive substrate (2). A composite layer (4) is provided on the intermediate layer (3). The composite layer (4) includes tantalum layers (41) and catalyst layers (42). Each of the catalyst layers (42) contains platinum and iridium. Each of the tantalum layers (41) is made from tantalum oxide, tantalum, or a mixture of tantalum oxide and tantalum. The tantalum layers (41) and the catalyst layers (42) are alternately stacked one layer by one layer in a thickness direction (D1) of the electrically conductive substrate (2). A bottom layer of the composite layer (4) closest to the primary surface (21) of the electrically conductive substrate (2) is constituted by one tantalum layer (41) of the tantalum layers (41). A top layer of the composite layer (4) furthest from the electrically conductive substrate (2) is constituted by one catalyst layer (42) of the catalyst layers (42).

IPC 8 full level

C25B 11/04 (2021.01); **C23C 18/00** (2006.01); **C25B 1/26** (2006.01); **C25B 11/02** (2021.01); **C25B 11/031** (2021.01); **C25B 11/053** (2021.01); **C25B 11/069** (2021.01); **C25B 11/081** (2021.01)

CPC (source: EP US)

C25B 1/26 (2013.01 - EP US); **C25B 11/02** (2013.01 - EP); **C25B 11/031** (2021.01 - EP); **C25B 11/053** (2021.01 - EP); **C25B 11/063** (2021.01 - US); **C25B 11/069** (2021.01 - EP); **C25B 11/081** (2021.01 - EP); **C25B 11/093** (2021.01 - US)

Citation (search report)

- [A] CN 106367777 B 20180904
- [A] US 6231731 B1 20010515 - KONDO MAKOTO [JP], et al
- [A] US 4515673 A 19850507 - HAYFIELD PETER C S [GB]
- See references of WO 2020217817A1

Designated contracting state (EPC)

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EP 3960905 A1 20220302; **EP 3960905 A4 20220803**; CN 113795612 A 20211214; JP 7194911 B2 20221223; JP WO2020217817 A1 20201029; US 2022178034 A1 20220609; WO 2020217817 A1 20201029

DOCDB simple family (application)

EP 20796016 A 20200324; CN 202080031703 A 20200324; JP 2020013021 W 20200324; JP 2021515887 A 20200324; US 202017604426 A 20200324