

Title (en)
BIPOLAR PLATE FOR ELEMENTS OF A FUEL CELL UNIT, METHOD FOR PRODUCING SAID BIPOLAR PLATE, FUEL CELL UNIT INCLUDING SAME, AND FUEL CELL INCLUDING SAID UNIT

Title (de)
BIPOLARE PLATTE FÜR ELEMENTE EINER BRENNSTOFFZELLENEINHEIT, VERFAHREN ZUR HERSTELLUNG DIESER BIPOLAREN PLATTE, BRENNSTOFFZELLENEINHEIT DAMIT UND BRENNSTOFFZELLE MIT DIESER EINHEIT

Title (fr)
PLAQUE BIPOLAIRE POUR ÉLÉMENTS D'UNE UNITÉ DE PILE À COMBUSTIBLE ET SON PROCÉDÉ DE FABRICATION, UNITÉ DE PILE À COMBUSTIBLE LA COMPORTANT ET PILE À COMBUSTIBLE COMPORTANT CETTE UNITÉ

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Application
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Abstract (en)
[origin: WO2019145759A1] Bipolar plate for assembling the elements of a fuel cell unit, consisting of a stainless-steel substrate (1) coated on at least one of the two faces thereof with a layer (5) of an electrically conductive material, characterised in that the material is selected from CrN and a bivalent or trivalent Ti compound or a mixture of such compounds, in that the electrically conductive material is a bivalent or trivalent Ti compound or a mixture of such compounds, the layer (5) contains at most a quantity of oxygen in at.%, measured by X-ray photoelectron spectroscopy (XPS) on the upper 10 nm of the layer, which does not exceed 1.5 times the content in at.% of oxygen which, according to the measured content in at.% of Ti, would correspond to a coating which consists entirely of TiO₂, and in that at least one intermediate layer (4) of a metal or an alloy metal is positioned between the substrate (1) and the layer (5) of electrically conductive material, the thickness of the layer (4) of metal material being at least 1 nm over the entire surface of the substrate (1). The invention also relates to a method for producing said bipolar plate, a fuel cell unit including same, and a fuel cell including said unit.

IPC 8 full level
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Citation (search report)
See references of WO 2019145759A1

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