

Title (en)

BIPOLAR PLATE FOR IMPROVING THE EFFICIENCY OF A PROTON-EXCHANGE MEMBRANE FUEL CELL

Title (de)

BIPOLARE PLATTE ZUR VERBESSERUNG DER EFFIZIENZ EINER PROTONENAUSTAUSCHMEMBRAN-BRENNSTOFFZELLE

Title (fr)

PLAQUE BIPOLAIRE POUR AMELIORER LE RENDEMENT D'UNE PILE A COMBUSTIBLE A MEMBRANE ECHANGEUSE DE PROTONS

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Application

EP 18773527 A 20180724

Priority

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Abstract (en)

[origin: WO2019025701A1] The invention concerns a bipolar plate (5) for a proton-exchange membrane fuel cell (113), comprising: - an oxidiser inlet manifold and an oxidiser outlet manifold; - oxidiser flow channels (541) of an active area (54); - an inlet homogenisation area (52); - an exhaust homogenisation area; for a Reynolds number of the flow of oxidiser in the exhaust homogenisation area of between 1000 and 2000: - linear head losses through the exhaust homogenisation area make up more than 80% of the head losses dP2 between the active area (54) and the oxidiser outlet manifold; - the value dP2/dP1 is at least equal to 2, dP1 being the head losses between the oxidiser inlet manifold and the active area (54).

IPC 8 full level

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