

Title (en)

METHOD FOR WETTING AT LEAST ONE OF THE SURFACES OF AN ELECTROLYTE IN A FUEL CELL

Title (de)

VERFAHREN ZUR BENETZUNG WENIGSTENS EINER DER OBERFLÄCHEN EINES ELEKTROLYTEN IN EINER BRENNSTOFFZELLE

Title (fr)

PROCEDE POUR MOUILLER AU MOINS UNE DES SURFACES D'UN ELECTROLYTE DANS UNE PILE A COMBUSTIBLE

Publication

EP 1082770 A2 20010314 (DE)

Application

EP 99924846 A 19990429

Priority

- DE 19819324 A 19980430
- EP 9902923 W 19990429

Abstract (en)

[origin: DE19819324A1] The invention relates to a low-temperature fuel cell (1) comprising two porous electrodes (2, 3) of differing polarity. An electrolyte (6) having a surface (7) on the fuel gas side and a surface (8) on the reaction gas side is arranged between the electrolyte-facing surfaces (5) of the electrodes (2, 3). The invention also relates to a method for wetting at least one of the surfaces (7, 8) of an electrolyte in such a fuel cell (1). To this end the fuel cell (1) is positioned adjacent to at least one channel element (9) comprising a semi-permeable membrane (10) through which a fluid guided in the channel element (9) is able to pass towards the electrolyte and at least partly covers at least one of the surfaces (7, 8) of the electrolyte (6) with a layer of water so that the reactions taking place at the electrolyte (6) are enhanced. The invention is advantageous insofar as dosing can be carried out via an adjustment of the pressure or via the concentration of water in the fluid, in particular if the fluid also contains a carrier medium.

IPC 1-7

H01M 8/04; **H01M 8/02**; **H01M 8/10**

IPC 8 full level

H01M 8/02 (2006.01); **H01M 8/04** (2006.01); **H01M 8/04007** (2016.01); **H01M 8/04029** (2016.01); **H01M 8/04291** (2016.01); **H01M 8/10** (2006.01)

CPC (source: EP US)

H01M 8/04029 (2013.01 - EP US); **H01M 8/04074** (2013.01 - EP US); **H01M 8/04291** (2013.01 - EP US); **H01M 2300/0082** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP)

Citation (search report)

See references of WO 9957778A2

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

DE 19819324 A1 19991104; EP 1082770 A2 20010314; JP 2002513996 A 20020514; US 6630258 B1 20031007; WO 9957778 A2 19991111; WO 9957778 A3 20000302

DOCDB simple family (application)

DE 19819324 A 19980430; EP 9902923 W 19990429; EP 99924846 A 19990429; JP 2000547669 A 19990429; US 70202500 A 20001030