

Title (en)
FUEL CELL MEMBRANE HUMIDIFICATION

Title (de)
BEFEUCHTUNG EINER BRENNSTOFFZELLENMEMBRAN

Title (fr)
HUMIDIFICATION DE MEMBRANE DE PILE A COMBUSTIBLE

Publication
EP 1129500 A4 20071017 (EN)

Application
EP 98944427 A 19981028

Priority
US 9802895 W 19981028

Abstract (en)
[origin: WO0025377A1] A polymer electrolyte membrane fuel cell assembly (10) has an anode side (12) and a cathode side (14) separated by the membrane (16) and generating electrical current by electrochemical reactions between a fuel gas and an oxidant. The anode side (12) comprises a hydrophobic gas diffusion backing (24) contacting one side of the membrane (16) and having hydrophilic areas therein for providing liquid water directly to the one side of the membrane (16) through the hydrophilic areas of the gas diffusion backing (24). In a preferred embodiment, the hydrophilic areas of the gas diffusion backing (24) are formed by sewing a hydrophilic thread (34) through the gas diffusion backing (24).

IPC 8 full level
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Citation (search report)

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- [DA] WATANABE M ET AL: "MANAGEMENT OF THE WATER CONTENT IN POLYMER ELECTROLYTE MEMBRANES WITH POROUS FIBER WICKS", November 1993, JOURNAL OF THE ELECTROCHEMICAL SOCIETY, ELECTROCHEMICAL SOCIETY. MANCHESTER, NEW HAMPSHIRE, US, PAGE(S) 3190-3193, ISSN: 0013-4651, XP002914712
- See references of WO 0025377A1

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