

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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- [XY] EP 0872907 A1 19981021 - SANYO ELECTRIC CO [JP]
- [Y] WO 9410716 A1 19940511 - BALLARD POWER SYSTEMS [CA], et al
- [DA] US 5635039 A 19970603 - CISAR ALAN J [US], et al
- [A] EP 0415733 A2 19910306 - CANADA MINISTER DEFENCE [CA]
- [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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