

Title (en)

APPARATUS OF HIGH POWER DENSITY FUEL CELL LAYER WITH MICRO STRUCTURED COMPONENTS

Title (de)

HOHE LEISTUNGSDICHTE SCHICHT-BRENNSTOFFZELLE VORRICHTUNG MIT MIKROSTRUKTURIERTEN KOMPONENTEN

Title (fr)

APPAREIL A COUCHES DE PILES A COMBUSTIBLE A DENSITE DE PUISSANCE ELEVEE DOTE DE COMPOSANTS MICROSTRUCTURES

Publication

EP 1506587 A2 20050216 (EN)

Application

EP 03704927 A 20030205

Priority

- IB 0300915 W 20030205
- US 35479502 P 20020206
- US 35463702 P 20020206
- US 35491202 P 20020206
- US 35474302 P 20020206
- US 36063802 P 20020301

Abstract (en)

[origin: WO03067693A2] The invention is a fuel cell made of a fuel plenum with fuel, an oxidant plenum with oxidant, a porous substrate communicating the fuel and oxidant plenum, a channel formed by the porous substrate, an anode, a cathode, electrolyte in a portion of the channel contacting the anode and the cathode preventing transfer of fuel to the cathode and preventing transfer of oxidant to the anode, a first coating to prevent fuel from entering a portion of the porous substrate, a second coating to prevent oxidant from entering a portion of the porous substrate, two sealant barriers, and a positive and negative electrical connection, wherein the invention also involves a multiple fuel cell layer structure, a bi-level fuel cell layer structure, and a method for making a fuel cell layer.

IPC 1-7

H01M 8/04; H01M 8/00; H01M 8/24

IPC 8 full level

H01M 4/86 (2006.01); **H01M 4/90** (2006.01); **H01M 4/92** (2006.01); **H01M 8/00** (2006.01); **H01M 8/02** (2006.01); **H01M 8/04** (2006.01); **H01M 8/06** (2006.01); **H01M 8/10** (2006.01); **H01M 8/24** (2006.01)

CPC (source: EP KR US)

H01M 4/86 (2013.01 - KR); **H01M 8/004** (2013.01 - EP); **H01M 8/023** (2013.01 - EP); **H01M 8/0258** (2013.01 - EP); **H01M 8/026** (2013.01 - US); **H01M 8/0263** (2013.01 - EP US); **H01M 8/0271** (2013.01 - US); **H01M 8/04** (2013.01 - KR); **H01M 8/04089** (2013.01 - EP); **H01M 8/04186** (2013.01 - EP); **H01M 8/04201** (2013.01 - EP); **H01M 8/241** (2013.01 - US); **H01M 8/2418** (2016.02 - US); **H01M 8/242** (2013.01 - EP); **H01M 8/2457** (2016.02 - US); **H01M 8/2483** (2016.02 - EP US); **B82Y 30/00** (2013.01 - KR); **H01M 4/921** (2013.01 - EP); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)

See references of WO 03067693A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

WO 03067693 A2 20030814; WO 03067693 A3 20041216; AU 2003207924 A1 20030902; AU 2003207924 A8 20030902; CA 2473491 A1 20030814; CN 100358177 C 20071226; CN 1647303 A 20050727; EP 1506587 A2 20050216; JP 2005517273 A 20050609; KR 20040105711 A 20041216

DOCDB simple family (application)

IB 0300915 W 20030205; AU 2003207924 A 20030205; CA 2473491 A 20030205; CN 03803428 A 20030205; EP 03704927 A 20030205; JP 2003566927 A 20030205; KR 20047012094 A 20030205