

Title (en)

POLYMER MEMBRANE FOR FUEL CELLS AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

POLYMERE BRENNSTOFFZELLEN-MEMBRAN UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)

MEMBRANE POLYMERE POUR PILES A COMBUSTIBLE ET PROCEDE DE PRODUCTION DE LADITE MEMBRANE

Publication

**EP 1430560 A2 20040623 (DE)**

Application

**EP 02776768 A 20020927**

Priority

- DE 0203736 W 20020927
- DE 10149716 A 20010928

Abstract (en)

[origin: WO03030289A2] The invention relates to the field of chemistry and to membranes, such as applied for example in direct methanol fuel cells. The aim of the present invention is to provide membranes having a substantially improved methanol retention capacity. Said aim is achieved by a polymer membrane for fuel cells, whereby the separating layer(s) comprises at least diblock- and/or multiblock-copolymers having the general segment structures A-(B-A) $k$  and/or B-(A-B) $l$  and/or (A-B) $m$  with  $k \geq 1$  and  $l \geq 1$  and  $m \geq 1$ , whereby the block segment (A) comprises an oligomer segment, non-conducting to electrons and non-conducting to protons and the block segment (B) comprises an oligomer segment, conducting protons and non-conducting to electrons. Said aim is also achieved by a method, whereby the starting substances are reacted to produce the block segments (A) from at least one oligomer segment, non-conducting to electrons and non-conducting to protons, as well as the block segments (B) from at least one oligomer segment, conducting protons and non-conducting to electrons.

IPC 1-7

**H01M 8/10**; **C08J 5/22**; **B01D 71/80**

IPC 8 full level

**B01D 71/80** (2006.01); **C08J 5/22** (2006.01); **H01M 8/10** (2006.01); **H01M 8/1027** (2016.01); **H01M 8/103** (2016.01); **H01M 8/1032** (2016.01); **H01M 8/1044** (2016.01); **H01M 8/1051** (2016.01); **H01M 8/1088** (2016.01)

CPC (source: EP)

**B01D 71/80** (2013.01); **C08J 5/2256** (2013.01); **H01M 8/1027** (2013.01); **H01M 8/103** (2013.01); **H01M 8/1032** (2013.01); **H01M 8/1044** (2013.01); **H01M 8/1051** (2013.01); **H01M 8/1088** (2013.01); **C08J 2365/02** (2013.01); **C08J 2371/12** (2013.01); **Y02E 60/50** (2013.01); **Y02P 70/50** (2015.11)

Citation (search report)

See references of WO 03030289A2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**WO 03030289 A2 20030410**; **WO 03030289 A3 20031113**; AU 2002339343 A1 20030414; DE 10149716 A1 20030430; EP 1430560 A2 20040623

DOCDB simple family (application)

**DE 0203736 W 20020927**; AU 2002339343 A 20020927; DE 10149716 A 20010928; EP 02776768 A 20020927