

Title (en)

PROTON-CONDUCTING MEMBRANE AND ITS USE

Title (de)

PROTONENLEITENDE MEMBRAN UND DEREN VERWENDUNG

Title (fr)

MEMBRANE CONDUCTRICE DE PROTONS ET SON UTILISATION

Publication

**EP 2289122 A1 20110302 (DE)**

Application

**EP 09745506 A 20090502**

Priority

- EP 2009003163 W 20090502
- EP 08008975 A 20080515
- EP 09745506 A 20090502

Abstract (en)

[origin: WO2009138172A1] Proton-conducting polymer membrane comprising at least one polyazole, at least one ionic liquid and at least one compound of the formula (P1) RI 4POH (P1) where each RI independently of any other is a radical which comprises C, O and/or H and also, if desired, further, different atoms, it being possible if desired for two radicals RI to be connected to one another. The membrane is distinguished in particular by high mechanical stability and high conductivity, and is therefore especially suitable as a polymer electrolyte membrane for fuel cell applications.

IPC 8 full level

**H01M 8/02** (2006.01); **H01M 8/10** (2006.01)

CPC (source: EP US)

**C08J 5/2256** (2013.01 - EP US); **H01M 8/0289** (2013.01 - EP US); **H01M 8/1027** (2013.01 - EP US); **H01M 8/103** (2013.01 - EP US);  
**H01M 8/1048** (2013.01 - EP US); **H01M 8/1072** (2013.01 - EP US); **C08J 2379/06** (2013.01 - EP US); **H01M 2300/0045** (2013.01 - EP US);  
**Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP US)

Citation (search report)

See references of WO 2009138172A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

**WO 2009138172 A1 20091119**; BR PI0912651 A2 20160126; CA 2723283 A1 20091119; CN 102047479 A 20110504; EP 2289122 A1 20110302;  
JP 2011523496 A 20110811; KR 20110036878 A 20110412; RU 2010151121 A 20120620; US 2011065020 A1 20110317

DOCDB simple family (application)

**EP 2009003163 W 20090502**; BR PI0912651 A 20090502; CA 2723283 A 20090502; CN 200980117370 A 20090502; EP 09745506 A 20090502;  
JP 2011508813 A 20090502; KR 20107025658 A 20090502; RU 2010151121 A 20090502; US 99214609 A 20090502