Title (en)

METHOD FOR PRODUCING A PROTON-CONDUCTING MEMBRANE

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER PROTONENLEITENDEN MEMBRAN

Title (fr)

PROCÉDÉ DE FABRICATION D'UNE MEMBRANE CONDUISANT LES PROTONS

Publication

EP 2373406 A1 20111012 (DE)

Application

EP 09764468 A 20091205

Priority

- EP 2009008706 W 20091205
- EP 08021238 A 20081206
- EP 09764468 A 20091205

Abstract (en)

[origin: WO2010063489A1] The invention relates to a method for the production of a proton-conducting polymer membrane on the basis of polyazoles, comprising the steps of A) converting one or more aromatic tetra-amino compounds having one or more aromatic carboxylic acids, which contain at least two acid groups per carboxylic acid monomer, to form a salt comprising diammonium cations and carboxylate anions, B) mixing the salt from step A) with polyphosporic acid to form a solution and/or dispersion, C) applying a layer using the mixture according to step B) onto a carrier, D) heating the planar formation/layer obtained according to step C) to temperatures of up to 350°C, preferably up to 280°C, to form the polyazole polymers, E) treating the membrane formed in step D) in the presence of moisture at temperatures and for a duration sufficient until it is self-supporting.

IPC 8 full level

B01D 71/62 (2006.01); **B01D 67/00** (2006.01); **B01D 71/82** (2006.01); **C08J 5/22** (2006.01); **H01M 8/10** (2006.01)

CPC (source: EP US)

B01D 67/0006 (2013.01 - EP US); **B01D 71/82** (2013.01 - EP US); **C08J 5/2256** (2013.01 - EP US); **H01M 8/1004** (2013.01 - EP US); B01D 2325/14 (2013.01 - EP US); C08J 2379/04 (2013.01 - EP US); H01M 2300/0082 (2013.01 - EP US); Y02E 60/50 (2013.01 - EP); Y02P 70/50 (2015.11 - EP US)

Citation (search report)

See references of WO 2010063489A1

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 SM TR

DOCDB simple family (publication)

WO 2010063489 A1 20100610; EP 2373406 A1 20111012; US 2011236563 A1 20110929; US 8846133 B2 20140930

DOCDB simple family (application)

EP 2009008706 W 20091205; EP 09764468 A 20091205; US 200913132959 A 20091205