

Title (en)
COMPOSITE ION-EXCHANGE MEMBRANE AND PROCESS FOR PRODUCTION THEREOF

Title (de)
ZUSAMMENGESETZTE IONENAUSTAUSCHERMEMBRAN UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
MEMBRANE ÉCHANGEUSE D'IONS COMPOSITE ET PROCÉDÉ DE FABRICATION ASSOCIÉ

Publication
EP 4179012 A1 20230517 (EN)

Application
EP 21740035 A 20210706

Priority
• EP 20184460 A 20200707
• EP 2021068698 W 20210706

Abstract (en)
[origin: EP3936557A1] The current invention relates to a process for making a composite ion exchange membrane, said composite ion exchange membrane comprising at least one ion exchange polymer which adheres to a porous support, the process comprising the steps of : providing a porous support comprising a porous polymer matrix, said porous support having a thickness between 10 and 1000 µm and an median pore size between 10 and 100000 nm, preparing a curable ion exchange precursor comprising : (a) radicalizeable monomer or oligomer comprising a vinyl, acryl or acrylamide functional group, (b) monomer, oligomer or polymer with an ionexchange moiety and (c) optionally an initiator; creating a thin layer of curable ion exchange precursor onto at least one side of the porous support layer, and adhering said curable ion exchange precursor to said porous support by initiating radical polymerization of the curable ion exchange precursor. The invention further relates to the composite ion exchange membrane obtainable by said process.

IPC 8 full level
C08J 5/22 (2006.01); **B01D 69/12** (2006.01); **C08J 7/18** (2006.01)

CPC (source: EP US)
B01D 67/0006 (2013.01 - EP); **B01D 69/02** (2013.01 - EP); **B01D 69/125** (2013.01 - EP US); **B01D 71/281** (2022.08 - EP US); **B01D 71/4011** (2022.08 - EP US); **C08J 5/2231** (2013.01 - EP); **C08J 5/2268** (2013.01 - EP); **C08J 7/18** (2013.01 - EP); **B01D 71/76** (2013.01 - EP); **B01D 2323/345** (2013.01 - EP); **B01D 2323/40** (2013.01 - EP); **B01D 2325/04** (2013.01 - EP); **B01D 2325/14** (2013.01 - EP); **B01D 2325/16** (2013.01 - EP); **B01D 2325/42** (2013.01 - EP); **C08J 2327/06** (2013.01 - EP); **C08J 2425/18** (2013.01 - EP); **C08J 2433/02** (2013.01 - EP); **C08J 2433/04** (2013.01 - EP); **C08J 2433/26** (2013.01 - EP); **C08J 2447/00** (2013.01 - EP); **C08J 2471/12** (2013.01 - EP); **C08J 2475/14** (2013.01 - EP); **C08J 2479/04** (2013.01 - EP); **C08J 2481/06** (2013.01 - EP)

Designated contracting state (EPC)
AL 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 RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 3936557 A1 20220112; EP 4179012 A1 20230517; WO 2022008530 A1 20220113

DOCDB simple family (application)
EP 20184460 A 20200707; EP 2021068698 W 20210706; EP 21740035 A 20210706