

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 November 2011 (10.11.2011)

(10) International Publication Number
WO 2011/140158 A2

(51) International Patent Classification:
B01D 69/02 (2006.01) **B01D 71/00** (2006.01)
B01D 61/02 (2006.01)

(21) International Application Number:
PCT/US2011/035083

(22) International Filing Date:
3 May 2011 (03.05.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/330,559 3 May 2010 (03.05.2010) US
13/100,283 3 May 2011 (03.05.2011) US

(72) Inventor; and

(71) Applicant : **HERRON, John, R.** [US/US]; 2960 SW
Morris Ave., Corvallis, OR 97333 (US).

(74) Agent: **UDALL, Pacer K.**; Booth Udall, PLC, 1155 W.
Rio Salado Pkwy., Suite 101, Tempe, AZ 85281 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD,
SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG,
ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*

(54) Title: POLYMER COATED HYDROLYZED MEMBRANE

(57) Abstract: A method of forming a polymer coated hydrolyzed membrane includes forming a membrane from a first hydrophilic polymer by immersion precipitation, coating the membrane with a thin layer of a second hydrophilic polymer more pH tolerant than the first hydrophilic polymer to form a dense rejection layer, and exposing the coated membrane to a high pH solution thereby forming a hydrolyzed ultrafiltration membrane. A polymer coated hydrolyzed membrane includes a porous membrane formed from a first hydrophilic polymer by immersion precipitation and from hydrolysis, and a dense rejection layer applied to the membrane and formed from a second hydrophilic polymer more pH tolerant than the first hydrophilic polymer.



WO 2011/140158 A2