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9902250-1 IP0S
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C08J 3/09, B01D 71/68, 67/00, 69/08		A1	(11) International Publication Number: WO 98/29478 ✓ (43) International Publication Date: 9 July 1998 (09.07.98)
(21) International Application Number: PCT/US97/24087 ✓ (22) International Filing Date: 30 December 1997 (30.12.97) ✓ (30) Priority Data: ✓ ① 08/774,732 ✓ 31 December 1996 (31.12.96) ✓ US ✓ ② 08/932,680 ✓ 18 September 1997 (18.09.97) ✓ US ✓ (71) Applicant: ALTHIN MEDICAL, INC. [US/US]; 14620 N.W. 60th Avenue, P.O. Box 9308, Miami Lakes, FL 33014-9308 (US). ✓ (72) Inventors: MELUCH, Timothy, B.; 18205 S.W. 29th Street, Miramar, FL 33029 (US); CHIANG, Chung-Yuan; 11751 N.W. 12th Street, Pembroke Pines, FL 33026 (US); JAA-NINE, Hamid; 7411 N.W. 10 Court, Plantation, FL 33313 (US); NGUYEN, Thanh; 1740 N.W. 166th Avenue, Pembroke, FL 33028 (US); RUZIUS, Kees; 7621 S.W. 174th Street, Miami, FL 33157 (US); SILVA, Lalith, K.; 7110 N.W. 179th Street #109, Miami Lakes, FL 33015 (US). ✓ ⑦ WASHINGTON, George; 9511 Chelsen Drive, Miramar, FL 33025 (US). ✓		(74) Agent: STEPHENS, Donald, L., Jr.; Klarquist, Sparkman, Campbell, Leigh & Winston, LLP, One World Trade Center, Suite 1600, 121 S.W. Salmon Street, Portland, OR 97204 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
		Published With international search report. ✓ Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. 2 PDS 7 INVS. 1 appl ⁿ . IPC: C08G 75/00	

(54) Title: MELT-SPUN POLYSULFONE SEMIPERMEABLE MEMBRANES AND METHODS FOR MAKING THE SAME ✓

(57) Abstract

The present invention discloses, *inter alia*, a composition useful for producing a homogeneous, semipermeable membrane, the composition comprising (1) a polysulfone compound, (2) a solvent, such as sulfolane, antipyrine, δ -valerolactam, diethyl phthalate, and mixtures thereof, and (3) a non-solvent, such as poly(ethylene glycol), di(ethylene glycol), tri(ethylene glycol), glycerol, and mixtures thereof. Another aspect of this invention discloses methods for fabricating semipermeable membranes by homogeneously mixing the composition of the polysulfone compound, solvent, and non-solvent, melting the composition, and melt-spinning the molten composition. Another aspect of the present invention includes homogeneous, melt-spun, semipermeable membranes useful for liquid separation processes, such as, but not limited to, microfiltration, ultrafiltration, dialysis, and reverse osmosis.

