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(21) International Application Number: PCT/US99/11045 (22) International Filing Date: 18 May 1999 (18.05.99) (30) Priority Data: 09/100,163 18 June 1998 (18.06.98) US (71) Applicant: 3M INNOVATIVE PROPERTIES COMPANY [US/US]; 3M Center, P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (72) Inventors: INSLEY, Thomas, I.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). JOHNSTON, Raymond, P.; P.O. Box 33427, Saint Paul, MN 55133-3427 (US). (74) Agents: ROGERS, James, A. et al.; 3M Innovative Properties Company, Office of Intellectual Property Counsel, P.O. Box 33427, Saint Paul, MN 55133-3427 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, 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, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: MICROSTRUCTURED SEPARATION DEVICE**(57) Abstract**

An active fluid separation device for removing a constituent of a fluid mixture. The separation device formed from a first polymeric structured layer having a plurality of flow channels defined in one surface, and a selectively permeable fluid separation media covering at least some of the flow channels. An external source is also included to provide a potential over the flow channels to promote movement of the fluid through the separation media, thereby removing a constituent component of the fluid mixture. A manifold in fluid contact with the flow channels of the structured layer may also be used to operatively permit the source to provide the potential over the flow channels.

