



(51) International Patent Classification:
B01D 63/08 (2006.01) *B01D 65/00* (2006.01)
B01D 65/10 (2006.01)

(21) International Application Number:
PCT/US2008/010616

(22) International Filing Date:
11 September 2008 (11.09.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/997,420 3 October 2007 (03.10.2007) US

(71) Applicant (for all designated States except US): **MILLIPORE CORPORATION** [US/US]; 290 Concord Road, Billerica, MA 01821 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HUNT, Stephen** [US/US]; 6 Salem Road, Billerica, MA 01862 (US).

(74) Agent: **HUBBARD, John, Dana**; Millipore Corporation, 290 Concord Road, Billerica, MA 01821 (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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
7 October 2010

(54) Title: FILTRATION CARTRIDGE FORMED OF STACKED PLATES

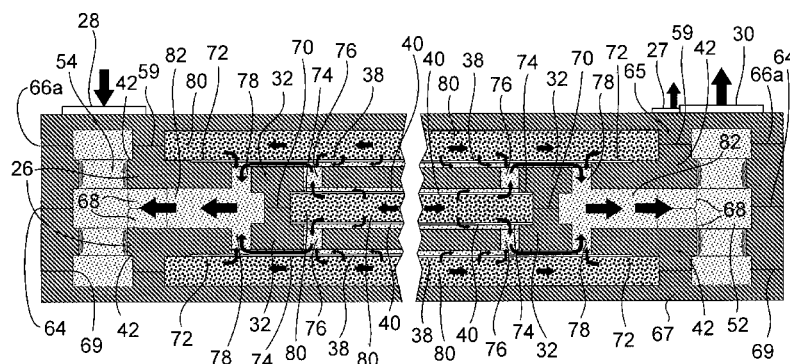


Figure 4

(57) Abstract: A filtration cartridge is provided comprising one or a stack of filtration units (26) sealed to each other at their outer periphery and to end caps (22, 24) thereby eliminating the need for a housing surrounding the stack. Each unit (26) comprises two support plates (42) bonded together and each having an outer membrane (38) and an inner membrane (40), the outer having a larger surface area than the inner. Fluid pathways are provided so that filtration of all incoming feed is assured prior to passing from the cartridge as filtrate. Two permeate pathways are provided to direct permeate to an outlet from the filtration cartridge. Further, a vent passage (56, 27) is foreseen.