

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
27 December 2007 (27.12.2007)

PCT

(10) International Publication Number
WO 2007/149273 A2

(51) International Patent Classification:

B01D 29/11 (2006.01) **B01D 29/92** (2006.01)
B01D 29/21 (2006.01)

(21) International Application Number:

PCT/US2007/013833

(22) International Filing Date: 13 June 2007 (13.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/815,375 21 June 2006 (21.06.2006) US

(71) Applicant (for all designated States except US): **ENTEGRIS, INC.** [US/US]; 3500 Lyman Boulevard, Chaska, MN 55318 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NORRIS, Douglas, A., D.** [US/US]; 180 Tyngsboro Road, Unit C1, North Chelmsford, MA 01863 (US). **TOWLE, Timothy, W.** [US/US]; 145 Concord Road, Lee, NH 03824 (US).

(74) Agents: **CARROLL, Alice, O.** et al.; Hamilton, Brook, Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133, Concord, MA 01742-9133 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, 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:

— without international search report and to be republished upon receipt of that report

(48) Date of publication of this corrected version:

27 March 2008

(15) Information about Correction:

see Notice of 27 March 2008

(54) Title: SYSTEM AND METHOD FOR LIQUID FILTRATION WITH REDUCED HOLD-UP VOLUME

(57) Abstract: In one embodiment according to the invention, there is provided a filter device for liquid filtration, the filter device being in fluid communication with a plurality of liquid pathways, at least one pathway of the plurality of liquid pathways having a smallest equivalent fluid flow diameter of the plurality of liquid pathways. The device comprises a filter membrane, and a filter core comprising at least one cross hole in fluid communication with the filter membrane, each cross hole having an equivalent fluid flow diameter. The sum of the equivalent fluid flow diameters of the at least one cross holes does not exceed the smallest equivalent fluid flow diameter of the plurality of liquid pathways.



WO 2007/149273 A2