(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 January 2011 (27.01.2011)

PCT

(10) International Publication Number
WO 2011/011350 A2

(51) International Patent Classification:
B01L 3/00 (2006.01)

(21) International Application Number:
PCT/US2010/042506

(22) International Filing Date:
20 July 2010 (20.07.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/226,764 20 July 2009 (20.07.2009) US
61/297,221 21 January 2010 (21.01.2010) US

(71) Applicant *(for all designated States except US)*: **SILOAM BIOSCIENCES, INC.** [US/US]; 413 Northland Boulevard, Cincinnati, OH 45140 (US).

(72) Inventors; and
(71) Applicants : **PUNTAMBEKAR, Aniruddha** [US/US]; 413 Northland Boulevard, Cincinnati, OH 45140 (US). **KAI, Junhai** [US/US]; 413 Northland Boulevard, Cincinnati, OH 45140 (US). **LEE, Se Hwan** [US/US]; 413 Northland Boulevard, Cincinnati, OH 45140 (US). **AHN, Chong, H.** [US/US]; 413 Northland Boulevard, Cincinnati, OH 45140 (US).

(74) Agent: **WILCOX, James, L.**; 1767 Route 313, Perkasie, PA 18944 (US).

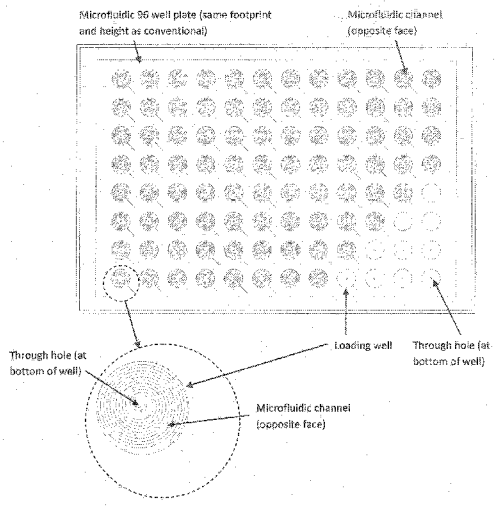
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, 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: MICROFLUIDIC ASSAY PLATFORMS



(57) Abstract: This invention discloses novel improvements to conventional microtiter plates, involving integrating microfluidic channels with such microtiter plates to simplify the assay operation, Increase operational speed and reduce reagent consumption. The present invention can be used in place of a conventional microliter plate and can be easily substituted without any changes to the existing instrumentation systems designed for microtiter plates. The invention also discloses a microfluidic device integrated with sample loading wells wherein the entire flow process is capillary driven.

WO 2011/011350 A2