

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
18 June 2020 (18.06.2020)



(10) International Publication Number
WO 2020/123406 A1

(51) International Patent Classification:

B01L 3/00 (2006.01) **C12Q 1/686** (2018.01)
B01L 7/00 (2006.01)

(21) International Application Number:

PCT/US2019/065287

(22) International Filing Date:

09 December 2019 (09.12.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/777,616 10 December 2018 (10.12.2018) US

(71) Applicant: **COMBINATI INCORPORATED** [US/US];
3436 Rambow Drive, Palo Alto, California 94306 (US).

(72) Inventors: **LIN, Robert**; 3575 Lupine Avenue, Palo Alto,
California 94303 (US). **HUNG, Ju-Sung**; 3436 Rambow
Drive, Palo Alto, California 94306 (US).

(74) Agent: **LAMIQUIZ, Jiarong L.**; Wilson Sonsini Goodrich
& Rosati, 650 Page Mill Road, Palo Alto, California
94304-1050 (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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
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, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: MICROFLUIDIC ARRAY FOR SAMPLE DIGITIZATION

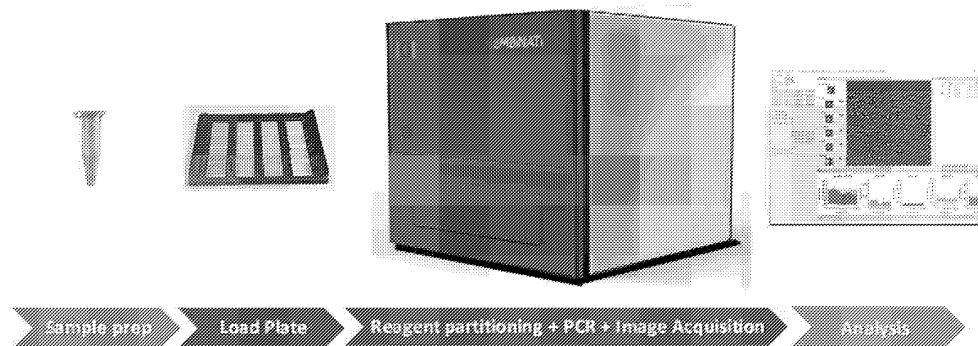


FIG. 10

(57) Abstract: The present disclosure provides systems, methods, and devices for processing a biological sample. The device may be a microfluidic device comprising a fluid flow path and a chamber. The fluid flow path may comprise a channel and an inlet port and no outlet port. The inlet port may be configured to direct a biological sample to the channel. The channel may be in fluid communication with the chamber. The chamber may be configured to receive a portion of the biological sample from the channel and retain the biological sample during processing.



WO 2020/123406 A1