



(51) International Patent Classification:

B01L 3/00 (2006.01) **C12Q 1/68** (2018.01)
B01L 7/00 (2006.01) **G01N 33/569** (2006.01)

(21) International Application Number:

PCT/US2021/036788

(22) International Filing Date:

10 June 2021 (10.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/037,417 10 June 2020 (10.06.2020) US
63/080,514 18 September 2020 (18.09.2020) US
63/106,779 28 October 2020 (28.10.2020) US

(71) Applicant: **10X GENOMICS, INC.** [US/US]; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US).

(72) Inventors: **KIM, Hanyoup**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **TENTORI, Augusto Manuel**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **XING, Siyuan**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **BHARADWAJ, Rajiv**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **LIN, Bill Kengli**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **BAVA, Felice Alessio**; 6230

Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **ALIMSIJAH, • Pratomo Putra**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). **MIKHAIEL, Nabil**; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US).

(74) Agent: **SHIEH-NEWTON, Terri et al.**; One Financial Center, Boston, Massachusetts 02111 (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, IT, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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,

(54) Title: FLUID DELIVERY METHODS

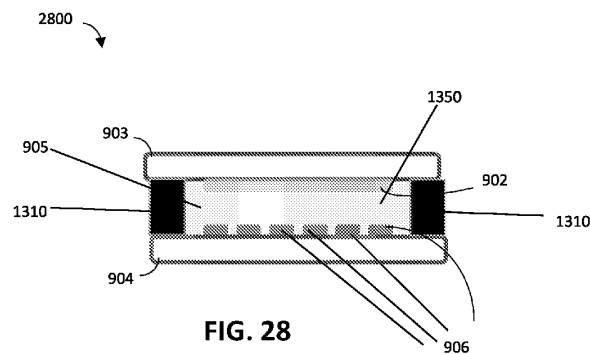


FIG. 28

(57) Abstract: Provided herein is a fluid delivery method for permeabilizing a biological sample. The method includes delivering the fluid to a first substrate and/or a second substrate. At least one of the first substrate and the second substrate includes a spacer. The method further includes assembling, subsequent to the delivering, a chamber comprising the first substrate, the second substrate, the biological sample, and the spacer. The spacer may be disposed between the first substrate and second substrate. The spacer may be configured to maintain the fluid within the chamber and maintain a separation distance between the first substrate and the second substrate. The spacer may be positioned to at least partially surround an area on the first substrate on which the biological sample is disposed and/or at least partially surround the array disposed on the second substrate.

[Continued on next page]

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))*
- *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))*