



- (51) **International Patent Classification:**
G01N 21/01 (2006.01)
- (21) **International Application Number:**
PCT/US2023/067830
- (22) **International Filing Date:**
02 June 2023 (02.06.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/348,879 03 June 2022 (03.06.2022) US
- (71) **Applicant:** 10X GENOMICS, INC. [US/US]; 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US).
- (72) **Inventors:** MORGAN, David; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). PRISTINSKI, Denis; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). DEJARNETTE, Evan; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). CATALDO, Joshua; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). ZHANG, Yiran; c/o 10x Ge-

nomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). GUAN, Zhenping; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US). TANNER, Adrian; c/o 10x Genomics, Inc., 6230 Stoneridge Mall Road, Pleasanton, California 94588-3260 (US).

- (74) **Agent:** NOVAK, Jason; Norton Rose Fulbright US LLP, 555 California Street, Suite 3300, San Francisco, California 94104 (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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,

- (54) **Title:** METHODS, SYSTEMS, AND DEVICES FOR SAMPLE INTERFACE

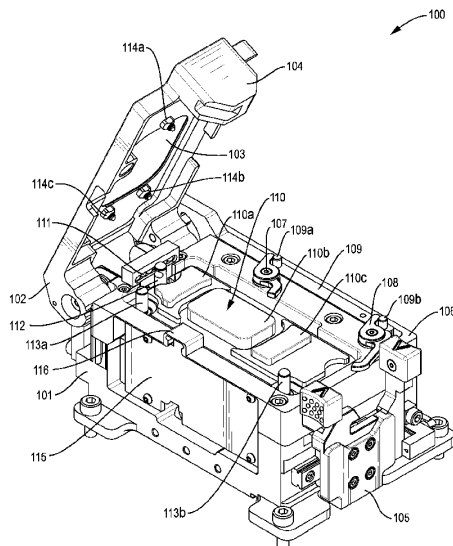


FIG. 1A

(57) **Abstract:** An assembly includes a stage body, a cam plate disposed on the body, and a sample positioning plate having a sample positioning surface configured to receive a sample device. The surface has first, second, and third raised portions. The second raised portion is disposed between the first and third raised portions. The first, second, and third raised portions are configured to contact the sample device. The assembly includes a riser module disposed within the stage body. The riser module is coupled to the plate and the body. The assembly includes a lid configured to be coupled to the cam plate. The lid has a coupled configuration and an uncoupled configuration such that, when in the coupled configuration, a recess is formed by the lid and the plate. The assembly includes one or more light sources disposed in the cam plate that are configured to direct light within the recess.

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, ME, 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).

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i))*
- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*