

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
06 August 2020 (06.08.2020)



(10) International Publication Number
WO 2020/159795 A9

- (51) International Patent Classification:
C12M 1/00 (2006.01) *C12Q 1/6874* (2018.01)
- (21) International Application Number:
PCT/US2020/014775
- (22) International Filing Date:
23 January 2020 (23.01.2020)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
62/798,354 29 January 2019 (29.01.2019) US
- (71) Applicant: **ILLUMINA, INC.** [US/US]; 5200 Illumina Way, San Diego, California 92122 (US).
- (72) Inventors: **CHEN, Xi-Jun**; 5200 Illumina Way, San Diego, California 92122 (US). **WU, Yir-Shyuan**; 5200 Illumina Way, San Diego, California 92122 (US). **KHURANA, Tarun Kumar**; 5200 Illumina Way, San Diego, California 92122 (US). **QIANG, Liangliang**; 5200 Illumina Way, San Diego, California 92122 (US). **PRICE, Andrew J.**; 5200 Illumina Way, San Diego, California 92122 (US).
- (74) Agent: **DIERKER, Julia Church** et al.; Dierker & Kavanaugh, P.C., 3331 W. Big Beaver Road, Suite 109, Troy, Michigan 48084 (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, 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,

(54) Title: SEQUENCING KITS

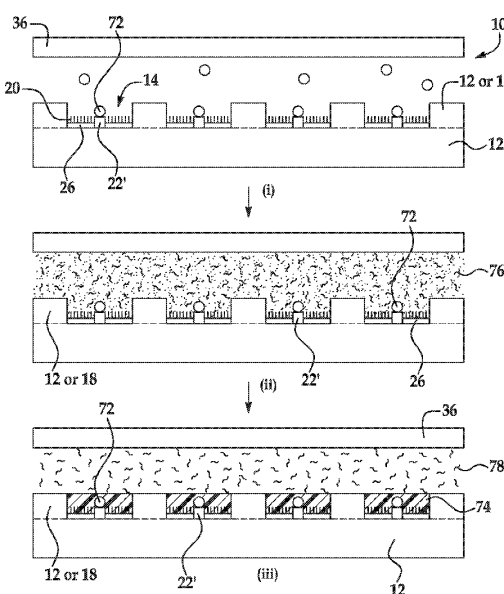


FIG. 5

(57) Abstract: An example of a sequencing kit includes a flow cell, an encapsulation matrix precursor composition, and a radical initiator. The flow cell includes a plurality of chambers and primers attached within each of the plurality of chambers. The encapsulation matrix precursor composition consists of a fluid, a monomer or polymer including a radical generating and chain elongating functional group, a radical source, and a crosslinker. The radical initiator is part of the encapsulation matrix precursor composition or is a separate component.

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).

Declarations under Rule 4.17:

— *as to the identity of the inventor (Rule 4.17(i))*

Published:

— *with international search report (Art. 21(3))*
— *with information concerning authorization of rectification
of an obvious mistake under Rule 91.3 (b) (Rule 48.2(i))*

(88) Date of publication of the international search report:

17 September 2020 (17.09.2020)

(48) Date of publication of this corrected version:

15 October 2020 (15.10.2020)

(15) Information about Correction:

see Notice of 15 October 2020 (15.10.2020)