



(51) International Patent Classification:

C12Q 1/6816 (2018.01) C12Q 1/6869 (2018.01)
C12Q 1/6876 (2018.01) C12Q 1/6874 (2018.01)

(21) International Application Number:

PCT/US2021/057441

(22) International Filing Date:

29 October 2021 (29.10.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/108,207 30 October 2020 (30.10.2020) US

(71) Applicant: **ELEMENT BIOSCIENCES, INC.** [US/US];
9880 Campus Point Drive, Suite 210, San Diego, California
92121 (US).

(72) Inventors: **ARSLAN, Sinan**; 9880 Campus Point Drive,
Suite 210, San Diego, California 92121 (US). **HE, Molly**;
9880 Campus Point Drive, Suite 210, San Diego, California
92121 (US). **PREVITE, Michael**; 9880 Campus Point
Drive, Suite 210, San Diego, California 92121 (US). **TIP-**

PANA, Ramreddy; 9880 Campus Point Drive, Suite 210,
San Diego, California 92121 (US). **YU, Hua**; 9880 Cam-
pus Point Drive, Suite 210, San Diego, California 92121
(US). **LIGHT, William**; 9880 Campus Point Drive, Suite
210, San Diego, California 92121 (US). **ZHAO, Junhua**;
9880 Campus Point Drive, Suite 210, San Diego, California
92121 (US).

(74) Agent: **PENNEBAKER, Sara**; WILSON SONSINI, 650
Page Mill Road, Palo Alto, California 94304 (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.

(54) Title: REAGENTS FOR MASSIVELY PARALLEL NUCLEIC ACID SEQUENCING

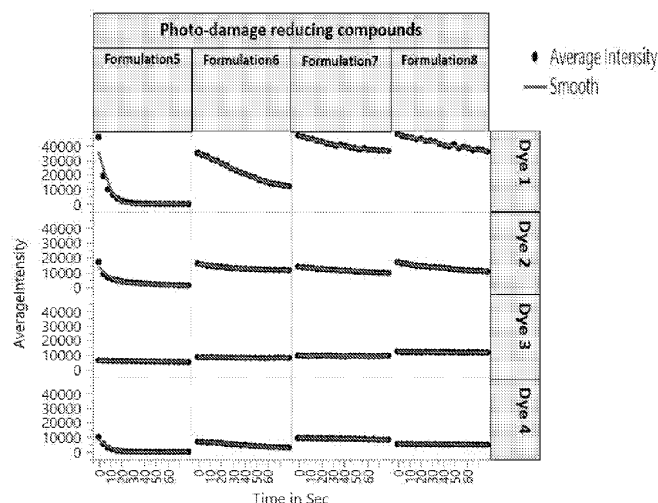


FIG. 17

(57) Abstract: The present disclosure provides compositions and methods that employ the compositions for conducting nucleic acid sequencing workflows, where the workflows include library preparation, immobilization and amplification of the library molecules to form immobilized template molecules, and sequencing the template molecules. In some embodiments, the compositions comprise reagents used to conduct nucleic acid sequencing workflows.

[Continued on next page]



(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))*
- *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))*