

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 March 2023 (30.03.2023)



(10) International Publication Number
WO 2023/049349 A1

(51) International Patent Classification:

C12Q 1/6844 (2018.01) C12Q 1/6876 (2018.01)

(21) International Application Number:

PCT/US2022/044540

(22) International Filing Date:

23 September 2022 (23.09.2022)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/247,397 23 September 2021 (23.09.2021) US

(71) Applicant: **N6 TEC, INC.** [US/US]; 3504 Mercato Ct, Pleasanton, California 94566 (US).

(72) Inventors: **PATEL, Pranav**; c/o N6 TEC, Inc., 3504 Mercato Ct, Pleasanton, California 94566 (US). **KABOUZI,**

Yassine; c/o N6 TEC, Inc., 3504 Mercato Ct, Pleasanton, California 94566 (US). **JANHAR, Ales**; c/o N6 TEC, Inc., 3504 Mercato Ct, Pleasanton, California 94566 (US). **SADRI, Amir**; c/o N6 TEC, Inc., 3504 Mercato Ct, Pleasanton, California 94566 (US). **JOUVENOT, Yann**; c/o N6 TEC, Inc., 3504 Mercato Ct, Pleasanton, California 94566 (US).

(74) Agent: **SWABECK, Joseph**; WILSON SONSINI GOODRICH & ROSATI, 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, 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,

(54) Title: METHODS AND SYSTEMS FOR SAMPLE ANALYSIS

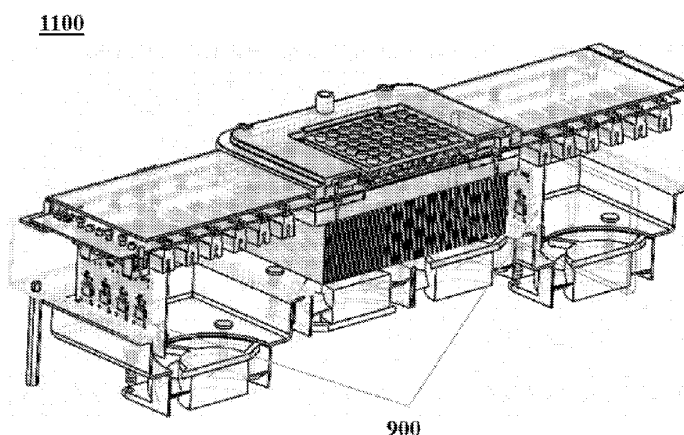


FIG. 11

(57) Abstract: The present disclosure provides methods and systems comprising use of a device. A device may comprise a plurality of locations configured to contain one or more samples, a plurality of thermal elements corresponding and disposed adjacent to the plurality of locations, wherein the plurality of elements are configured to affect a thermal condition within individual locations of the plurality of locations, at least one additional thermal element operably coupled and common to at least a subset of the plurality of elements, wherein the additional thermal element is configured to affect at least one operating condition of the plurality of thermal elements at least partially in response to the thermal condition within the individual locations of the plurality of locations, and at least one optical system configured to detect a signal or change thereof from the individual locations of the plurality of locations, wherein the signal or change thereof is generated at least partially by a change of the thermal condition and is indicative of a property associated

[Continued on next page]

WO 2023/049349 A1

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, 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))*

with the one or more samples.