

(43) International Publication Date
18 May 2012 (18.05.2012)(10) International Publication Number
WO 2012/064282 A1(51) International Patent Classification:
G01N 27/00 (2006.01) *C12M 1/34* (2006.01)(21) International Application Number:
PCT/SG2011/000374(22) International Filing Date:
24 October 2011 (24.10.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
201008260-0 8 November 2010 (08.11.2010) SG(71) Applicant (for all designated States except US): **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way #20-10, Connexis, Singapore 138632 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **RAHMAN, Abdur Rub Abdur** [IN/SG]; c/o Institute of Microelectronics, 11 Science Park Road, Singapore Science Park 2, Singapore 117685 (SG). **CHUNG, Yao-Kuang Andre** [—/SG]; c/o Institute of Microelectronics, 11 Science Park Road, Singapore Science Park 2, Singapore 117685 (SG). **LEE, Kok Chuan** [SG/SG]; c/o Institute of Microelectronics, 11 Science Park Road, Singapore Science Park 2, Singapore 117685 (SG). **GAO, Shan** [CN/SG]; c/o Institute of Microelectronics, 11 Science Park Road, Singapore Science Park 2, Singapore 117685 (SG). **PARK, Mi Kyoung** [KR/SG]; c/o Institute of Microelectronics, 11 Science Park Road, Singapore Science Park 2, Singapore 117685 (SG).

ence Park Road, Singapore Science Park 2, Singapore 117685 (SG).

(74) Agent: **VIERING, JENTSCHURA & PARTNER LLP**; P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

(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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: A BIOSENSOR

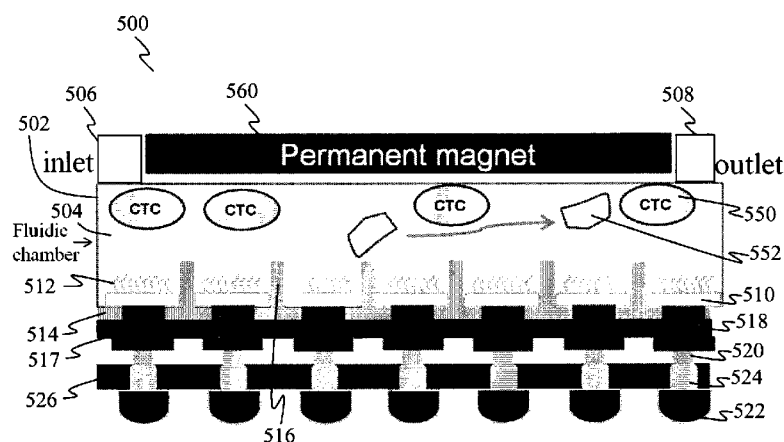


FIG. 5A

(57) Abstract: According to embodiments of the present invention, a biosensor is provided. The biosensor includes a support substrate, a plurality of sensing electrodes arranged on the support substrate, each of the plurality of sensing electrodes comprises a plurality of sensing electrode segments laterally disposed from each other, and a plurality of input-output ports configured for external connection, wherein each of the plurality of sensing electrodes is electrically isolated from each other and respectively coupled to each of the plurality of input-output ports.