

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 June 2008 (19.06.2008)

PCT

(10) International Publication Number
WO 2008/072192 A3

(51) International Patent Classification:

G01N 33/543 (2006.01) **G01N 27/00** (2006.01)
C12Q 1/68 (2006.01)

(21) International Application Number:

PCT/IB2007/055039

(22) International Filing Date:

12 December 2007 (12.12.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

06126094.9 14 December 2006 (14.12.2006) EP

(71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N. V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **IMMINK, Albert, H., J.** [NL/NL]; c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL). **DE THEIJE, Femke, K.** [NL/NL]; c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL). **DIJKSMAN, Johan, F.** [NL/NL]; c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL). **SCHROEDERS, Richard, J., M.** [NL/NL]; c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL). **PIERIK, Anke** [NL/NL];

c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL).
WISMANS, Antonius, J., J. [NL/NL]; c/o High Tech Campus 44, NL-5656 AE Eindhoven (NL).

(74) Agent: **SCHOUTEN, Marcus, M.**; High Tech Campus, NL-5656 AA Eindhoven, (NL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: BIOLOGICAL ASSAY SUBSTRATE AND METHOD AND DEVICE FOR PRODUCING SUCH SUBSTRATE

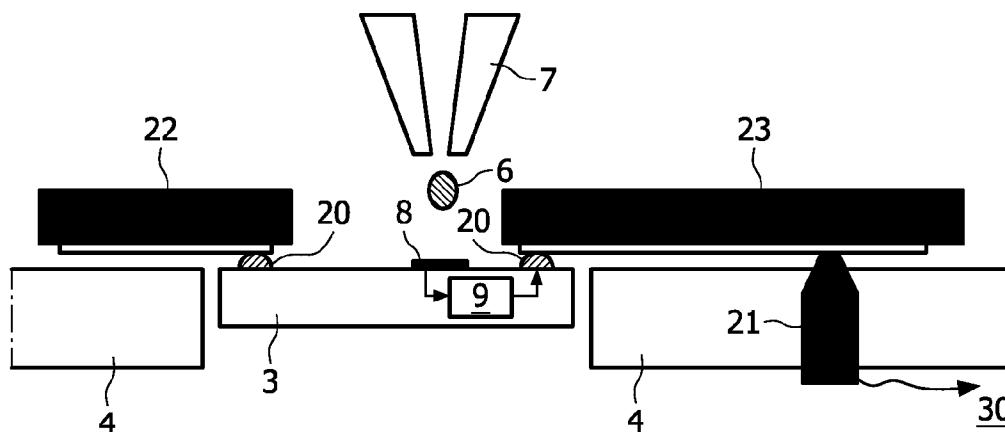


FIG. 2

(57) Abstract: The invention provides a biological assay substrate suitable for detecting at least one analyte in at least one sample fluid. The substrate comprises one or more capture probes able to each specifically bind at least one target analyte, and further comprises verification means which can detect the state of at least part of the capture probes. The invention also relates to a method and device for producing the biological assay substrate, and to a method for examining analyte fluids using the substrate.



Published:

— *with international search report*

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

23 October 2008

INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2007/055039

A. CLASSIFICATION OF SUBJECT MATTER

INV. G01N33/543 C12Q1/68 G01N27/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 352 976 A (CANON KK [JP]) 15 October 2003 (2003-10-15) abstract page 7, paragraph 3 page 14, paragraphs 1,2	1-3, 8-12, 15-18
A	WO 02/46756 A (ZEPTOSENS AG [CH]; ABEL ANDREAS P [CH]; SCHUERMANN MADER EVELINE [CH]) 13 June 2002 (2002-06-13) abstract; claims 1-10	1-19
X	WO 03/071258 A (CANTION AS [DK]; THAYSEN JACOB [DK]) 28 August 2003 (2003-08-28) abstract page 16, paragraph 3 page 21, paragraph 2	4, 5, 19



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

28 July 2008

Date of mailing of the international search report

07/08/2008

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Weijland, Albert

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2007/055039

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1352976	A	15-10-2003	NONE	
WO 0246756	A	13-06-2002	AU 1699702 A	18-06-2002
WO 03071258	A	28-08-2003	AU 2003206688 A1 EP 1476742 A1	09-09-2003 17-11-2004