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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,
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MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
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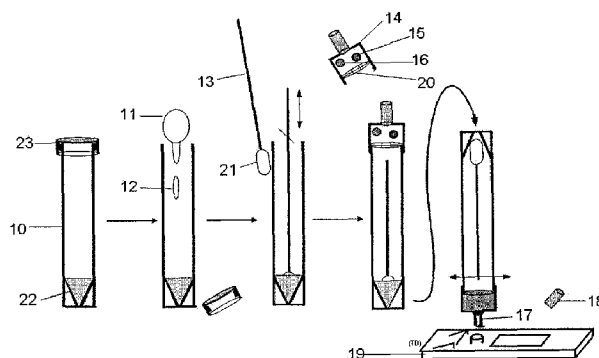
- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))

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

13 August 2009

(54) Title: MULTIANALYTE ASSAY

FIGURE 1



(57) Abstract: The invention provides compositions, systems and methods for detecting multiple analytes from a sample.

A. CLASSIFICATION OF SUBJECT MATTER*G01N 33/53(2006.01)i, G01N 33/48(2006.01)i, G01N 33/574(2006.01)i, G01N 35/00(2006.01)i*

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)

IPC 8 as above

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

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and application for Utility models since 1975

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

eKIPASS (KIPO internal), Delphion, NCBI PubMed (detect*, extract*, capture, probe, dropper, cap, collect*, address* and similar terms)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,719,691 B2 (A. KRITZMAN, et al.) 13 April 2004. See the whole document, especially claims.	1-64
A	US 2004/0197793 A1 (A. HASSIBI, et al.) 07 October 2004.	1-55
----	See the whole document, especially claims 24, 25, figures 4, 5, 8, 18.	-----
X		56-64
A	US 5,837,466 (D. J. LANE, et al.) 17 November 1998. See the whole document, especially claims, figures 2A, 2B, 9A.	1-64
A	P. CORSTJENS, et al. 'Use of up-converting phosphor reporters in lateral-flow assays to detect specific nucleic acid sequences: A rapid, sensitive DNA test to identify human Papillomavirus type 16 infection.' In Clinical Chemistry Vol.47(10):1885-1893 (2001).	1-55
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X	See the whole document, especially abstract, page 1891, right column, second paragraph, figure 3D.	56-64
A	S. Hashida, et al. 'Detection of one attomole of [Arg8]-vasopressin by novel noncompetitive enzyme immunoassay (hetero-two-site complex transfer enzyme immunoassay).' In J. Biochem. Vol.110(4):486-492 (1991).	1-55
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X	See the whole document, especially abstract.	56-64

☐ 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 application or patent but published on or after the international filing date

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"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

"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2008/062088**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See the Supplemental Box.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/062088

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6719691B2	13.04.2004	AU 2002-355200 A8 US 2003-023188 A1 US 6719691 B2 WO 0300-9798A2	17.02.2003 30.01.2003 13.04.2004 06.02.2003
US 2004-0197793 A1	07.10.2004	US 2004-0197845 A1 US 2005-011260 A1	07.10.2004 26.05.2005
US 5837466	17.11.1998	EP 0853129 A2 EP 0853129 A3 JP 10-293128 A JP 10-293128 US 6165714 US 5837466 A US 6165714 A	15.07.1998 07.07.1999 04.11.1998 04.11.1998 26.12.2000 17.11.1998 26.12.2000

Continuation of Box III.

This ISA found multiple inventions as follows:

Group I, claims 1–18 are directed to a kit for detection of one or more analytes, which is characterized by a test device comprising one or more addressable regions.

Group II, claims 19–55 are directed to a method and a system for detection of one or more analytes, which is characterized by a sample collection device comprising one or more pairs of probes comprising a detection probe and a capture probe; and a test device comprising one or more immobilized capture moieties.

Group III, claims 56–57 are directed to a method of detecting one or more peptides at a sensitivity of at least about 0.30 pg/ml or 1.7 attamoles(10^{-18}).

Group IV, claims 58–64 are directed to a method of detecting at least two or more viruses at a sensitivity and specificity of at least about 97%.

Since the above mentioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exit. Accordingly, the international application does not relate to one invention or to a single inventive concept.