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(54) Title: METHODS AND DEVICES FOR MEASURING THE LEVELS OF ANALYTES IN BODY FLUIDS

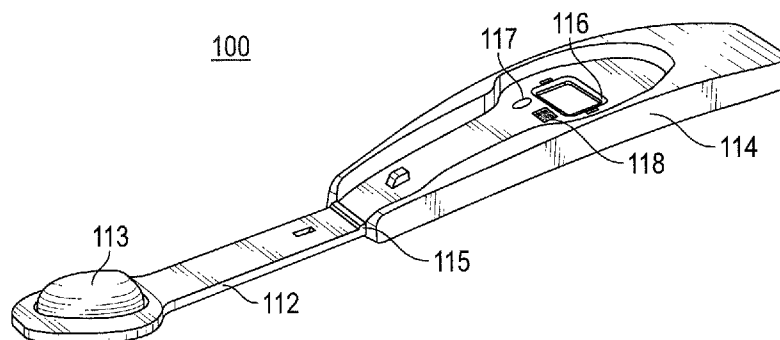


FIG. 6

(57) Abstract: A method of testing for an analyte in an individual comprises providing colour information obtained from a digital image of a coloured reagent on an analyte test strip, the coloured reagent having been generated in accordance with analyte in a test sample, converting the colour information from the image into an analyte level, recording the analyte level in association with user-specific information (e.g. a QR code), repeating the above steps to obtain two or more records of analyte levels for the same user at different times and using the records to monitor personal health or to predict the likely development of a disease or condition or to diagnose a disease or condition or to monitor a treatment regime associated with variation in analyte levels in saliva.



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).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61B5/103 A61B5/00 B01L3/00 G01N33/52 G01N21/78
 G01N21/84
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B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 A61B B01L G01N

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 practicable, search terms used)
 EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2016/080548 A1 (ERICKSON DAVID [US] ET AL) 17 March 2016 (2016-03-17) paragraph [0120] paragraph [0182] paragraph [0028] paragraph [0109] paragraph [0131] - paragraph [0150]; claims 1-69; figures 1-14 -----	1
X	US 2013/267032 A1 (TSAI TUNG MENG [TW] ET AL) 10 October 2013 (2013-10-10) paragraph [0069] - paragraph [0073]; claims 1-57; figures 1-20 paragraph [0098] paragraph [0062] ----- -/--	1-15,61

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
- "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
- "&" document member of the same patent family

Date of the actual completion of the international search 8 December 2017	Date of mailing of the international search report 15/12/2017
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Apostol, Simona
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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/059001

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/020766 A1 (OWEN-SMITH BRIAN D O [GB]) 25 January 2007 (2007-01-25) paragraph [0017] - paragraph [0035]; claims 1-10; figures 1-6 paragraph [0047] - paragraph [0050] paragraph [0052] - paragraph [0055] -----	1-7,12
X	US 2009/197296 A1 (MARTIN STEPHANIE M [US] ET AL) 6 August 2009 (2009-08-06) paragraph [0021]; claims 1-5; figures 1-6 paragraph [0022] - paragraph [0024] paragraph [0027] paragraph [0028] paragraph [0025] paragraph [0015] -----	16-64
X	US 2003/175993 A1 (TORANTO ANTHONY [US] ET AL) 18 September 2003 (2003-09-18) paragraph [0138]; claims 1-5; figures 6-13 paragraph [0134] paragraph [0083] paragraph [0077] -----	16, 18-57,61

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2017/059001

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 additional sheet

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 fees, this Authority did not invite payment of additional fees.

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15

Method of testing an analyte in an individual, based on processing a digital image of a coloured reagent on an analyte test strip

2. claims: 16-64

Device and method for testing analyte in saliva comprising a pad and a test strip pivotable to contact the pad

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2017/059001

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2016080548	A1	17-03-2016	NONE

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