(57) Abstract: The present invention describes a biosensing device and method. Specifically, binding of target analyte perturbs the surface of a sensor strip so that gas bubbles are generated in solution. The gas bubbles may be detected for determination of analyte presence in a sample.
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, 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).

— as to applicant’s entitlement to apply for and be granted a patent (Rule 4.17(ii))

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

Date of publication of the international search report: 20 January 2011

Declarations under Rule 4.17:
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8)- C12Q 1/28 (2009.01)
USPC - 435/28
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)-C12Q 1/28 (2009.01)
USPC-435/28

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC-435/4, 289.1, 192, 7.4; 435/63, 149

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubWEST(PGPB,USPT,USOC,EPAS,JPAB); Google Patents; Google Scholar
visual, scatter, light, optical, bubble, bubbles, peroxide, biosensor, detector, sensor, degradation, gas, detection.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 4,065,357 A (GROVES) 27 December 1977 (27.12.1977) (col 2 ln 20-40)</td>
<td>8, 11, and 20</td>
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<tr>
<td>Y</td>
<td>US 2004/0037746 A1 (BAUER) 26 February 2004 (26.02.2004) (para [0019], [0025], [0029], [0035], [0038], [0047], [0120], [0121].)</td>
<td>1-20</td>
</tr>
</tbody>
</table>

* 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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  "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

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"&" document member of the same patent family

Date of the actual completion of the international search
11 September 2009 (11.09.2009)

Date of mailing of the international search report
21 SEP 2009

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Form PCT/ISA/210 (second sheet) (July 2009)