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(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, 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, 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.

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Published:
— *with international search report*

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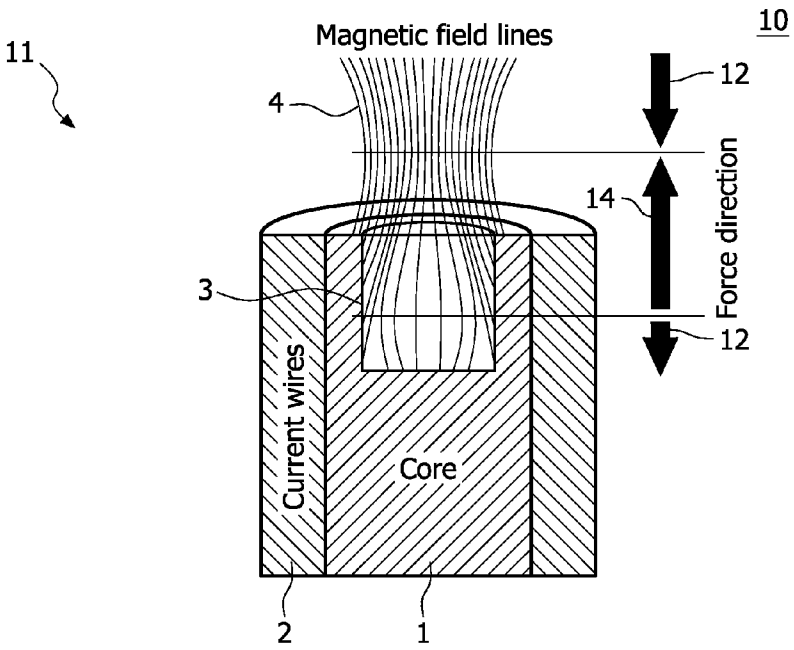
6 March 2008

(54) Title: A MAGNETIC SYSTEM



(57) Abstract: The invention relates to a magnetic system, especially for use with biosensors. It aims at developing a magnetic system for biosensors, which can switch between attraction force and repulsion force near the sensor surface. The arrangement has a magnetic system for biosensors, with at least one magnetic source and a sensor or sensor surface which corresponds with the magnetic field in a way that the magnetic source creates inhomogeneous magnetic field lines that results in a magnetic force towards the magnetic system and which subsequently or adjacently exerts a magnetic force directed away from the magnetic system with all magnetic forces generated at the same source of the magnetic means.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N33/543 G01N35/00

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 02/16904 A (IMEGO AB [SE]; STOREK DAVID [SE]; SCHNEEBERGER NIKLAUS [CH]; OTILLAR R) 28 February 2002 (2002-02-28) page 1, lines 7,8 page 4, lines 20-29 page 5, lines 19-24 page 12, lines 4-7 page 13, lines 22-26 page 15, line 20 - page 16, line 3	1,2,11, 12,15, 16,21 3-9, 17-19
X	US 2002/174878 A1 (NISSON PAUL E [US] ET AL) 28 November 2002 (2002-11-28) paragraphs [0011], [0012], [0026], [0027]; claims 1,7	1,2,11, 12

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[X] Further documents are listed in the continuation of Box C.

[X] 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.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 September 2007	14/12/2007

Name and mailing address of the ISA/	Authorized officer
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	Stussi, Elisa

INTERNATIONAL SEARCH REPORT

International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 304 984 A (IBM [US]) 26 March 1997 (1997-03-26) figures 13,18	1,2
X	EP 0 031 503 A2 (RICOH KK [JP]) 8 July 1981 (1981-07-08) figures 6,7,12,13	1,2
X	MARBLE A E ET AL: "An analytical methodology for magnetic field control in unilateral NMR" JOURNAL OF MAGNETIC RESONANCE, ACADEMIC PRESS, ORLANDO, FL, US, vol. 174, no. 1, May 2005 (2005-05), pages 78-87, XP004833775 ISSN: 1090-7807 figure 2	1,2
X	US 4 211 411 A (MCDANIEL CHARLES E [US] ET AL) 8 July 1980 (1980-07-08) abstract	1

INTERNATIONAL SEARCH REPORT

International application No.
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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 allsearchable 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 reportcovers 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.:

see annex

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: 1-9, 11-19,21

   Magnetic system comprising magnetic means to generate a magnetic field which exerts a magnetic force directed towards the magnetic system and which subsequently or adjacently exerts a magnetic force directed away from the magnetic system with all magnetic forces generated at the same source of the magnetic means. The magnetic means comprise a permanent magnet or a coil with a ferromagnetic core being equipped with an opening at the side where a sensor is located

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2. claims: 10,20

   Magnetic system comprising magnetic means to generate a magnetic field which exerts a magnetic force directed towards the magnetic system and which subsequently or adjacently exerts a magnetic force directed away from the magnetic system with all magnetic forces generated at the same source of the magnetic means. The magnetic means comprises a multiple layered system of at least two concentric magnetic means (inner and outer coils).

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2007/051719

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0216904 A	28-02-2002	AU 8278501 A	04-03-2002
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