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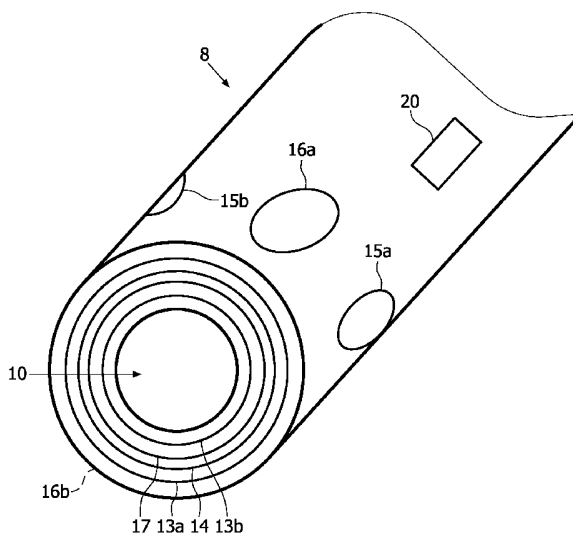
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(54) Title: ARRANGEMENT AND METHOD FOR DETERMINING THE SPATIAL DISTRIBUTION OF MAGNETIC PAR-
TICLES



(57) Abstract: The invention relates to an arrangement and a method for determining the spatial distribution of magnetic particles in an examination area. Magnetic field means are used to generate a spatially inhomogeneous gradient magnetic field with at least one region with a low field strength, in which the magnetization of the particles is in a state of non-saturation, whereas they are in a state of saturation in the remaining region. By using change means to shift the area with a low field strength within the examination area, a change in the magnetization of the magnetic particles is brought about which can be detected from outside by detection means and contains information about the spatial distribution of the magnetic particles in the examination area. The magnetic field means or the change means or the detection means or a combination of these means are arranged at least partially on a medical instrument.

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Published:

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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2005/054248

A. CLASSIFICATION OF SUBJECT MATTER INV. A61B5/05		
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) A61B G01R		
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	DE 101 51 778 A1 (PHILIPS CORPORATE INTELLECTUAL PROPERTY GMBH) 8 May 2003 (2003-05-08) cited in the application	1-5, 10, 12, 14
Y	the whole document	6-8
X	US 2004/158144 A1 (KEREN HANAN ET AL) 12 August 2004 (2004-08-12)	12, 13
Y	paragraph [0024] - paragraph [0025]	6-8
X	WO 2004/091721 A (PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH; KONINKLIJKE PHILIPS EL) 28 October 2004 (2004-10-28) cited in the application abstract; claims 6,8,12,13	1-5, 9, 10, 12, 14
-/--		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.		
<input checked="" type="checkbox"/> 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	"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	
"E" earlier document but published on or after the international filing date	"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	
"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)	"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.	
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	
"P" document published prior to the international filing date but later than the priority date claimed		
Date of the actual completion of the international search <div style="text-align: center; font-weight: bold;">16 June 2006</div>	Date of mailing of the international search report <div style="text-align: center; font-weight: bold;">27/06/2006</div>	
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 <div style="text-align: center; font-weight: bold;">Trachterna, M</div>	

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2005/054248

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 728 079 A (WEBER ET AL) 17 March 1998 (1998-03-17) abstract	6
A	----- US 2004/127788 A1 (ARATA LOUIS K) 1 July 2004 (2004-07-01) paragraph [0020] - paragraph [0022] -----	8

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 10 (part),11,14 (part)

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

Claims 10, 11, 14 encompass the step of inserting an invasive instruments (see p. 5/1. 22-26). These claims are thus considered to involve a method for treatment of the human or animal body by surgery within the meaning of Rule 39.1(iv) PCT. Embodiments of claims 10, 14 referring to non-surgical embodiments (see for instance p. 5/1. 13-16) have been searched.

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PCT/IB2005/054248

Box 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.: 10 (part), 11, 14 (part)
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
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 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:

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.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2005/054248

Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
DE 10151778	A1	08-05-2003	CN 1412550 A	23-04-2003
			EP 1304542 A2	23-04-2003
			JP 2003199767 A	15-07-2003
			US 2003085703 A1	08-05-2003
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US 2004158144	A1	12-08-2004	NONE	
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WO 2004091721	A	28-10-2004	NONE	
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US 5728079	A	17-03-1998	NONE	
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US 2004127788	A1	01-07-2004	NONE	
<hr style="border-top: 1px dashed black;"/>				