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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Ui))

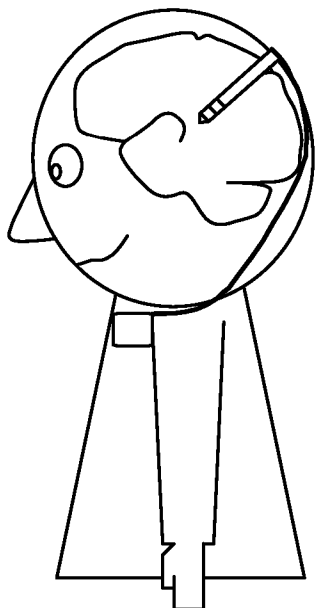
Published:

- with international search report

[Continued on next page]

(54) Title: REMAINING TIME INDICATION FOR A RECHARGEABLE IMPLANTABLE MEDICAL DEVICE

(57) Abstract: An implantable medical device for delivering a therapeutic output to a patient, comprising: a rechargeable electrical power source having a useful life; a therapeutic delivery device operatively coupled to the power source and adapted to deliver the therapeutic output to the patient; a power source recharge timing indicator operatively coupled to the power source, wherein the timing indicator includes means for determining and communicating when the remaining usage time before full drainage of the power source drops below a first predetermined level based on measurement of one or more physical characteristics of the power source and of the medical device; and safe mode means operatively coupled to the timing indicator, power source and therapeutic delivery device, wherein the safe mode means, upon activation, is capable of causing one or more actions to reduce the power consumption of the medical device; wherein the safe mode means is activated by receiving communications from the timing indicator that the remaining usage time before full drainage of the power source has dropped below one or more second predetermined levels, thereby preventing excessive power drainage from the power source which would result in damage to the power source and/or medical device and/or injury to the patient. A method for preventing excessive power drainage and indicating the remaining discharge time of the power source of an implantable medical device for delivering a therapeutic output to a patient, which would result in damage to the power source and/or medical device and/or injury to the patient is also disclosed.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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ADD. A61M/378 A61N1/372 A61M5/142 G01R31/36

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)
A61N A61M 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	WO 00/24459 A (MEDTRONIC INC [US]) 4 May 2000 (2000-05-04) pages 4,6 pages 27-30	1-15
X	EP 0 763 747 A (MEDTRONIC INC [US]) 19 March 1997 (1997-03-19) column 4, line 38 - column 5, line 16 column 15, line 48 - column 16, line 22	1,5-15

D 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 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

15 July 2008

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22/07/2008

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2007053832

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.: **16-30**
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
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:

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 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/IB2007/053832

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0024459 A	04-05-2000	US 6154675 A	28-11-2000
EP 0763747 A	19-03-1997	NONE	