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- (88) Date of publication of the international search report:
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(54) Title: METHOD FOR COATING MEDICAL DEVICE SURFACES

(57) Abstract: A method for coating a medical device with a hydrophilic polymer is provided. One method of the present invention includes chemically binding under appropriate reaction conditions a hydrophilic polymer to a biomaterial surface. Another method of the present invention includes chemically binding under appropriate reaction conditions a hydrophilic polymer to a primer located on a biomaterial surface. Another method of the present invention includes chemically binding under appropriate reaction conditions a biomolecule to a hydrophilic polymer located on a biomaterial surface.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/02120

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61L27/34

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 7 A61L

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)

WPI Data, PAJ, EPO-Internal, COMPENDEX, BIOSIS, MEDLINE, EMBASE, CHEM ABS Data, SCISEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 642 242 A (SOLOMON DONALD D ET AL) 10 February 1987 (1987-02-10) claims ---	1-10, 52, 61, 233, 234
A	EP 0 596 615 A (MEDTRONIC INC) 11 May 1994 (1994-05-11) claims ---	1-10, 52, 61, 233, 234
A	US 6 033 719 A (KEOGH JAMES R) 7 March 2000 (2000-03-07) claims ---	1-10, 52-61, 233, 234
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Further documents are listed in the continuation of box C.

Patent family members are listed in 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

30 October 2002

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08/11/2002

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

In 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.
A	US 5 928 916 A (KEOGH JAMES R) 27 July 1999 (1999-07-27) claims ---	1-10, 52-61, 233,234
A	IKADA Y: "SURFACE MODIFICATION OF POLYMERS FOR MEDICAL APPLICATIONS" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, vol. 15, no. 10, 1 August 1994 (1994-08-01), pages 725-736, XP000464803 ISSN: 0142-9612 the whole document -----	

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 11-51,62-232,235,236

In view of the large number and also the wording of the claims presently on file (21 independent claims), which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT) to such an extent that a meaningful search is impossible. Consequently, the search has been carried out for the subject-matter covered by claims 1-10, 52-61, 233 and 234 which relate to the coating of medical devices with a hydrophylic polymer using a catechol moiety as linking group.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

national application No.
PCT/US 02/02120

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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.: 11-51, 62-232, 235, 236
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:
see FURTHER INFORMATION sheet PCT/ISA/210

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 II Observations where unity of invention is lacking (Continuation of item 2 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.

Information on patent family members

International Application No
PCT/US 02/02120

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