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(54) Title: BONE IMPLANTS FOR THE TREATMENT OF INFECTION

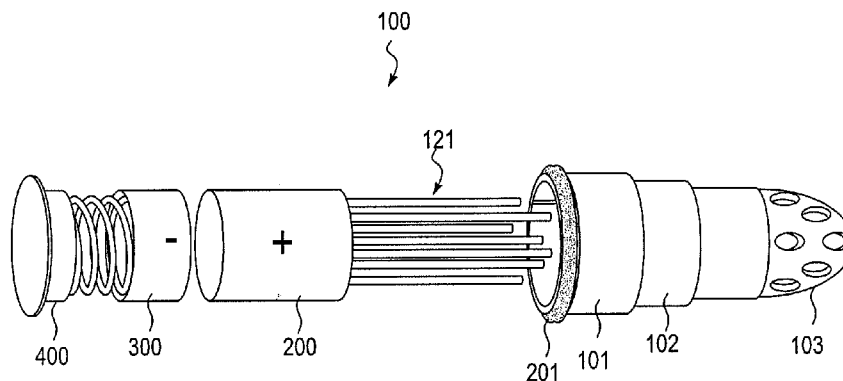


FIG. 1B

(57) Abstract: Described herein are devices, systems and methods for treating disease and/or infection by the release of silver from an implant over an extended period of time. In particular, the devices described herein may be used to treat infections such as osteomyelitis by the controlled release of silver ions from multiple sites of an extended-use implant. This implant typically includes a plurality of arms that both anchor and help distribute the released ions within the tissue. Power may be applied to release the silver ions into the tissue.

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A. CLASSIFICATION OF SUBJECT MATTER*A61M 37/00(2006.01)i, A61F 2/44(2006.01)i, A61L 27/04(2006.01)i, A61L 27/30(2006.01)i, C01G 5/00(2006.01)i*

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)

A61M 37/00; A61K 9/22; A61M 31/00; A61K 31/47; A61K 33/38; A61L 2/00; A61M 29/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: implant,silver,infetion

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004-0223944 A1 (CAPELLI CHRISTOPHER C.) 11 November 2004 See claims 1-28	1-36
A	US 2002-0031601 A1 (RABIH O. DAROUICHE et al.) 14 March 2002 See claims 1-31	1-36
A	US 2008-0319424 A1 (MUNI KETAN P. et al.) 25 December 2008 See claims 84-87, 105-108, 145-155, figures 1-11	1-36
A	US 6451003 B1 (FRANK R. PROSL et al.) 17 September 2002 See claims 12-9, figures 1-6	1-36

 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 application or patent 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 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

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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.: 37-52
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 37-52 are the methods of treating infection in a bone, which fall into the category of methods for treatment of the human body by surgery or therapy as well as diagnostic methods [Article 17(2)(a)(i), Rule 39.1(iv) PCT].
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 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 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.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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