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(54) Title: POSITIONING OF SENSORS FOR SENSOR ENABLED WOUND MONITORING OR THERAPY

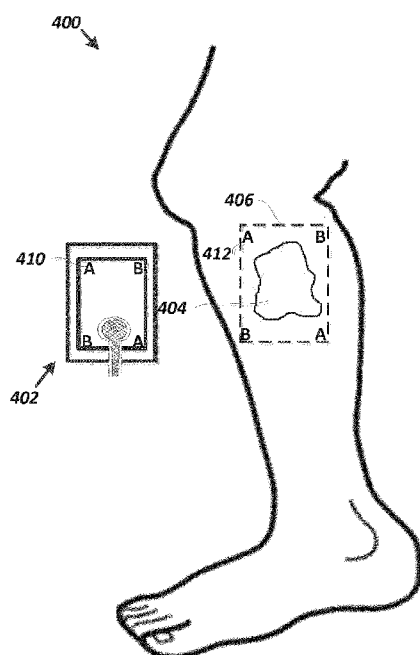


FIGURE 4A

(57) Abstract: Embodiments of apparatuses and methods for determining a positioning of sensors in a wound dressing are disclosed. In some embodiments, a wound monitoring and/or therapy system can include a wound dressing and a plurality of sensors configured to measure one or more wound characteristics. The wound monitor system can also include at least one positioning device configured to indicate position and/or orientation in the wound of a sensor of the plurality of sensors. In some embodiments, a detector can be configured to determine, based on the positioning data, the position and/or orientation in the wound of the sensor of the plurality of sensors. In some embodiments, the plurality of sensors can be positioned on a strip or string of material in communication with the positioning device.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2018/071767

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M1/00 A61F13/00
ADD.

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 A61F

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 practicable, 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.
A	WO 2013/066775 A1 (SMITH & NEPHEW INC [US]) 10 May 2013 (2013-05-10) paragraph [0034]; figure 1 -----	1-15
A	US 2012/165717 A1 (AL KHABURI JAWAD AMEEN JAWAD [OM]) 28 June 2012 (2012-06-28) paragraph [0050]; figure 2A -----	1-15
X	US 2014/298928 A1 (DUESTERHOFT PAUL [US] ET AL) 9 October 2014 (2014-10-09) paragraphs [0059], [0092]; figures 4, 9 -----	27-38
X	US 2014/058344 A1 (TOTH LANDY AARON [US]) 27 February 2014 (2014-02-27) paragraphs [0033], [0038]; figures 1-2 -----	27-38
X	US 2015/148760 A1 (DODD JAMES RODERICK [GB] ET AL) 28 May 2015 (2015-05-28) paragraphs [0116] - [0118]; figure 1 -----	27-38



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 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

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INTERNATIONAL SEARCH REPORT

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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.: 16-26, 54-56
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 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 all searchable 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.:
27-38
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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15

A wound monitoring and/or therapy system, comprising: a wound dressing configured to be positioned in contact with a wound, the wound dressing comprising a plurality of sensors configured to measure one or more wound characteristics, wherein the plurality of sensors are arranged on a sensor strip or a string of sensors; at least one positioning device configured to indicate position and/or orientation in the wound of a first sensor of the plurality of sensors; and a detector configured to determine, based on the positioning data, the position and/or orientation in the wound of the first sensor of the plurality of sensors.

2. claims: 27-38

A wound monitoring and/or therapy system, comprising: a wound dressing configured to be positioned in contact with a wound; a sensor tag, strip, or string comprising a plurality of sensors configured to measure one or more wound characteristics; and wherein the sensor tag, strip, or string is configured to be positioned in at least one of the wound or an area surrounding the wound.

3. claims: 39-53

A wound monitoring and/or therapy system, comprising: a wound dressing configured to be positioned in contact with a wound, the wound dressing comprising: a sensor support material comprising a plurality of sensors configured to measure one or more wound characteristics, wherein the plurality of sensors are configured to be positioned in at least one of the wound or an area surrounding the wound, the sensor support material comprising a plurality of tracks positioned on the sensor support material; wherein the sensor support material comprises a plurality of slits positioned between at least two adjacent tracks, positioned between at least two adjacent sensors, or positioned between at least one track and at least one adjacent sensor.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 16-26, 54-56

Claims 16-26 and 54-56 refer to a method for treatment of the human or animal body by therapy and surgery, which is against Rule 39.1(iv) PCT and Rule 67.1(iv). The reason is that the method is a method of operating a therapy system on a patient implicitly comprising steps of treating said patient and/or is a method making use of a wound dressing intended for treating a wound of a patient during the performance of the method (as is clear from [0004] and its treatment regimes).

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2018/071767

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