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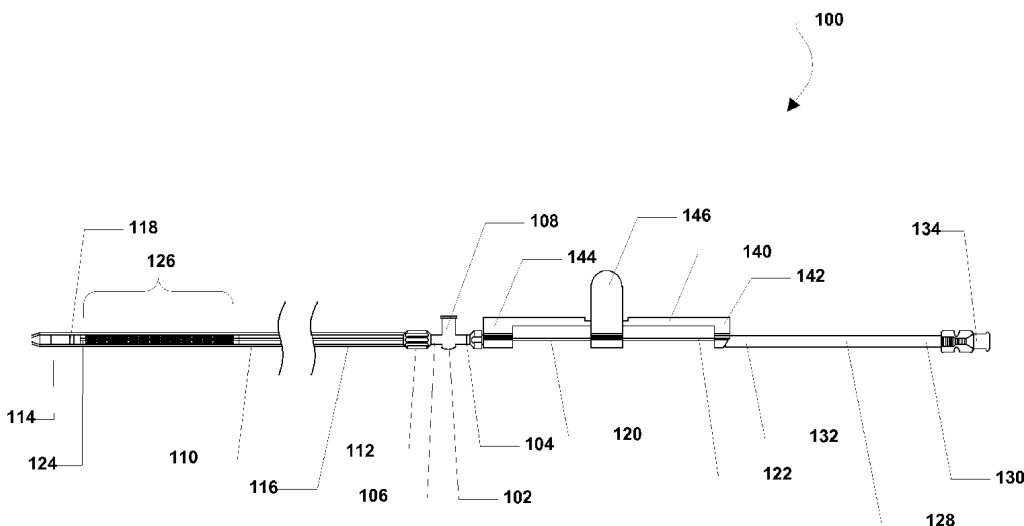


FIG. 1

(57) Abstract: An expandable vascular implant is disclosed and can include a body comprising a shape memory material that can have a shape memory temperature. Further, the vascular implant can include a coating on the body that can have a phase transition temperature. The phase transition temperature is greater than the shape memory temperature.

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A. CLASSIFICATION OF SUBJECT MATTER*A61F 2/06(2006.01)i, A61M 29/00(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)

IPC 8 A61F 2/06

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)

eKIPASS, NCBI PubMed database, Delphion Research Intellectual Property Network database

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y A	US 6,582,461 B1 (Burmeister et al.) Jun. 24, 2003. See the abstract and claim 1.	44 and 45 1, 8-14 and 32-35 1, 7, 15-31 and 36-40
Y	US 6,547,814 B2 (Edwin et al.) Apr. 15, 2003. See the claims	1, 8-14 and 32-35
A	US 6,245,099 B1(Edwin et al.) Jun. 12, 2001. See the whole document.	1 - 40, 44 and 45
A	US 6,153,966 A(Neukermans) Nov. 28, 2000. See the whole document.	1 - 40, 44 and 45
A	US 6,231,597 B1(Deem et al.) May 15, 2001. See the whole document.	1 - 40, 44 and 45

 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.: 41- 43
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 41-43 pertain to methods for treatment of the human or animal body by surgery, and thus relate to a subject matter which this International Searching Authority is not required, under Article 17(2)(a)(i) of the PCT and Rule 39(iv) of the Regulations under the PCT, to search.
2. Claims Nos.: 2 - 6
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:
Claims 2-6 are not clear and concise as required by PCT Article 6. The reason is as follow:
1) the meaning of the sentence of 'the shape memory temperature is .. greater than the shape memory temperature' in claim 2-6 is unclear.
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.

PCT/US2008/064733

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6582461 B1	24.06.2003	AT 176587 T	15.02.1999
		CA 2190012 A1	30.11.1995
		CA 2502504 A1	30.11.1995
		CA 2512311 A1	30.11.1995
		DE 69507800 T2	22.07.1999
		EP 0759730 A1	05.03.1997
		ES 2126896 T3	01.04.1999
		JP 10-500595 T	20.01.1998
		JP 2005-324053 A	24.11.2005
		JP 2007-236966 A	20.09.2007
		US 6451052 B1	17.09.2002
		WO 95-31945 A1	30.11.1995
		US 6547814 B2	15.04.2003
US 2001-0010012 A1	26.07.2001		
US 2003-0216805 A1	20.11.2003		
US 2006-0155369 A1	13.07.2006		
US 6245099 B1	12.06.2001		
US 7004966 B2	28.02.2006		
US 6245099 B1	12.06.2001	US 2001-0010012 A1	26.07.2001
		US 2001-010012 A1	26.07.2001
		US 6547814 B2	15.04.2003
		US 7004966 B2	28.02.2006
US 6153966 A	28.11.2000	US 5977689 A	02.11.1999
US 6231597 B1	15.05.2001	AU 2000-29929 A1	04.09.2000
		US 2001-0012961 A1	09.08.2001
		WO 00-48517 A1	24.08.2000