



(51) International Patent Classification:

A61L 31/06 (2006.01) A61L 31/18 (2006.01)
A61L 31/14 (2006.01)

(21) International Application Number:

PCT/US2009/038978

(22) International Filing Date:

31 March 2009 (31.03.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/101,041 10 April 2008 (10.04.2008) US

(71) Applicant (for all designated States except US): **ABBOTT CARDIOVASCULAR SYSTEMS INC.**
[US/US]; 3200 Lakeside Drive, Santa Clara, CA 95054-2807 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **WANG, Yunbing**
[CN/US]; 1063 Morse Avenue, Apartment 20-304, Sunnyvale, CA 94089 (US).

(74) Agents: **LUPKOWSKI, Mark** et al.; Squire Sanders & Dempsey L.L.p., 1 Maritime Plaza, Suite 300, San Francisco, CA 94111-3492 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

26 August 2010

(54) Title: IMPLANTABLE MEDICAL DEVICES FABRICATED FROM POLYURETHANES WITH GRAFTED RADIOPAQUE GROUPS

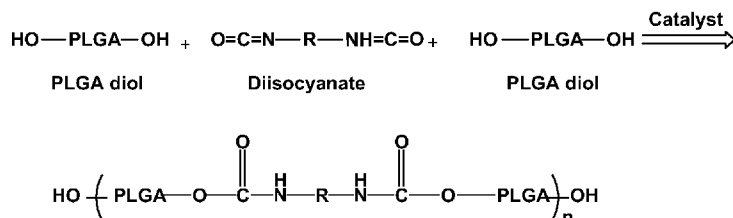


FIG. 7

(57) Abstract: Medical devices, such as stents, fabricated from a polymer including degradable polymer segments joined by diurethane linkages with radiopaque functional groups chemically bonded to the polymer are disclosed.

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2009/038978

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61L31/06 A61L31/14 A61L31/18
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)

A61L C08L C08G C09D

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	EP 1 498 147 A1 (EIDGENOESS TECH HOCHSCHULE [CH]) 19 January 2005 (2005-01-19) page 2, lines 23-25, 40 page 3; compounds 1-3 page 4, lines 4-5, 57-58 page 5, lines 2-5	1-18
A	WO 2007/084444 A2 (REVA MEDICAL INC [US]; BRANDON DONALD K [US]; MCGRATH JAMES E [US]; ZE) 26 July 2007 (2007-07-26) page 3 - paragraph 14 page 6 - paragraph 20 page 13 - paragraph 37 page 14, lines 2-3 - paragraph 38 ----- -/-	1-18



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

29 June 2010

Date of mailing of the international search report

06/07/2010

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Weiss, Marie-France

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2009/038978

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99/60920 A2 (WISCONSIN ALUMNI RES FOUND [US]) 2 December 1999 (1999-12-02) the whole document	1-18
A	JAYAKRISHNAN A ET AL: "Synthesis and polymerization of some iodine-containing monomers for biomedical applications" JOURNAL OF APPLIED POLYMER SCIENCE, JOHN WILEY AND SONS INC. NEW YORK, US LNKD-DOI:10.1002/APP.1992.070440421, vol. 44, no. 4, 5 February 1992 (1992-02-05), pages 743-748, XP009096023 ISSN: 0021-8995 the whole document	1-18
A	KRUFT M-A B ET AL: "Studies on radio-opaque polymeric biomaterials with potential applications to endovascular prostheses" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB LNKD-DOI:10.1016/0142-9612(95)00339-8, vol. 17, no. 18, 1 September 1996 (1996-09-01), pages 1803-1812, XP004032993 ISSN: 0142-9612 the whole document	1-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/038978

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1498147	A1	19-01-2005	WO 2005007210 A1 27-01-2005
			JP 2009513747 T 02-04-2009
			US 2006178477 A1 10-08-2006
WO 2007084444	A2	26-07-2007	AU 2007207700 A1 26-07-2007
			CA 2636004 A1 26-07-2007
			CN 101370532 A 18-02-2009
			EP 1973585 A2 01-10-2008
			JP 2009525062 T 09-07-2009
WO 9960920	A2	02-12-1999	AU 758331 B2 20-03-2003
			AU 4209699 A 13-12-1999
			CA 2329014 A1 02-12-1999
			DE 19983227 B4 03-07-2008
			DE 19983227 T0 28-06-2001
			EP 1082143 A2 14-03-2001
			ES 2169708 A1 01-07-2002
			GB 2353039 A 14-02-2001
			JP 2002516132 T 04-06-2002
			US 2002176822 A1 28-11-2002
			US 6361759 B1 26-03-2002