



(43) International Publication Date
10 December 2009 (10.12.2009)

PCT

(10) International Publication Number
WO 2009/148821 A3

(51) International Patent Classification:

A61L 31/08 (2006.01) A61L 31/14 (2006.01)
A61L 31/10 (2006.01) A61L 31/16 (2006.01)

(21) International Application Number:

PCT/US2009/044597

(22) International Filing Date:

20 May 2009 (20.05.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/056,912 29 May 2008 (29.05.2008) US

(71) Applicant (for all designated States except US):
BOSTON SCIENTIFIC SCIMED, INC. [US/US]; One
Scimed Place, Mailstop A150, Maple Grove, MN
55311-1566 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SCHEWE, Scott,**
R. [US/US]; 6300 Duck Lake Road, Eden Prairie, MN
55346-1334 (US). **WEBER, Jan** [NL/NL]; Holdaal 49,
NL-6228 GJ Maastricht (NL). **ZOROMSKI, Michele**
[US/US]; 3316 Pillsbury Avenue, Minneapolis, MN
55408 (US). **WARNER, Robert, W.** [US/US]; 1665
Lamplight Drive, Woodbury, MN 55125 (US).

(74) Agents: **GAGEL, John, J.** et al.; Fish & Richardson
P.C., P.O. Box 1022, Minneapolis, MN 55440-1022
(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).

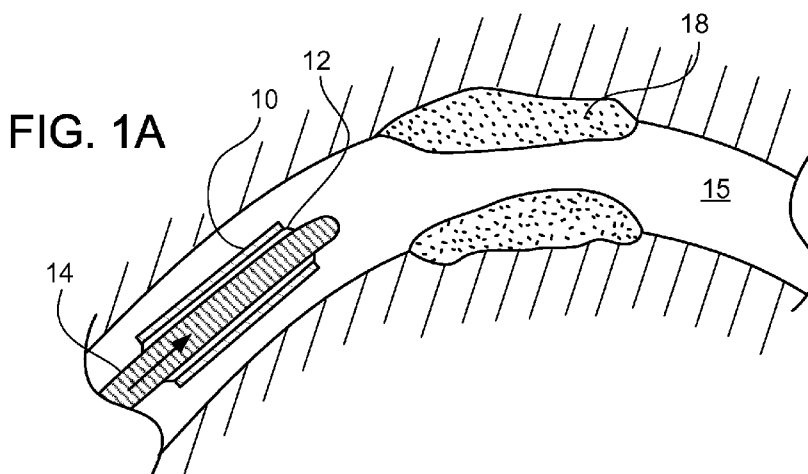
Published:

- 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:

2 September 2010

(54) Title: ENDOPROSTHESIS COATING



(57) Abstract: An endoprosthesis, e.g., a stent (e.g., a drug eluting stent), includes a surface, a first layer having a polyelectrolyte deposited on the surface, a plurality of polymeric particles deposited on the first layer, and a coating of a porous material deposited on the plurality of polymeric particles. At least one particle of the plurality of polymeric particles includes a polymer matrix and a drug distributed in the polymer matrix. A method of making the endoprosthesis is also disclosed.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/044597

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61L31/08 A61L31/10 A61L31/14 A61L31/16
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

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, BIOSIS, EMBASE, INSPEC, 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	WO 2005/115496 A1 (BOSTON SCIENT SCIMED INC [US]; CHEN JOHN JIANHUA [US]; WEBER JAN [US]) 8 December 2005 (2005-12-08) page 2, paragraph 6 page 3, paragraph 14 page 4, paragraphs 17, 20 page 9, paragraphs 31, 32 page 14, paragraph 47 page 18, paragraphs 64, 65	1-28
X	US 2006/100696 A1 (ATANASOSKA LJILJANA L [US] ET AL) 11 May 2006 (2006-05-11) page 1, paragraphs 10, 11 page 2, paragraph 20 page 4, paragraph 40 page 6, paragraphs 59, 60 figure 3	15, 25



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Date of the actual completion of the international search

13 July 2010

Date of mailing of the international search report

20/07/2010

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

Laurent, Antoine

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/044597

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005115496 A1	08-12-2005	CA 2590543 A1 EP 1750784 A1 JP 2007537827 T US 2005261760 A1	08-12-2005 14-02-2007 27-12-2007 24-11-2005
US 2006100696 A1	11-05-2006	CA 2586164 A1 EP 1812092 A1 JP 2008519648 T WO 2006052284 A1	18-05-2006 01-08-2007 12-06-2008 18-05-2006