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

(72) Inventors; and

(75) Inventors/Applicants (for US only): **STECKEL, Mark** [US/US]; 7 Ridge Road, Sharon, MA 02067 (US). **SIKES, Courtney** [US/US]; 98 Carrington Lane, Uxbridge, MA 01569 (US).

(74) Agents: **PARK, Keum, J.** et al.; Mayer & Williams PC, 251 North Avenue West, 2nd Floor, Westfield, NJ 07090 (US).

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(54) Title: MEDICAL DEVICES HAVING BIODEGRADABLE POLYMERIC REGIONS

(57) Abstract: According to an aspect of the present invention, implantable or insertable medical devices are provided, which contain one or more biodegradable polymeric regions. These biodegradable polymeric regions, in turn, contain one or more polymers, at least one of which is a biodegradable copolymer that includes: (a) one or more amorphous polymer blocks that displays a glass transition temperature below 37°C and (b) one or more amorphous polymer blocks displaying a glass transition temperature above 37°C.



WO 2007/111808 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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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, 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	<p>EP 1 555 278 A (INNOCORE TECHNOLOGIES B V [NL]) 20 July 2005 (2005-07-20)</p> <p>page 3, paragraphs 8,9 page 4, paragraph 12 - page 5, paragraph 19 page 8, paragraph 48 - page 10, paragraph 67 page 15, paragraph 102-104 example 10 claims 1-13,16-19,23,24,30-32</p> <p style="text-align: center;">----- -/-</p>	<p>1,3-12, 14,15, 17-19</p>

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Van den Bulcke, H

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/112172 A1 (PACETTI STEPHEN D [US]) 26 May 2005 (2005-05-26) page 1, paragraph 10 - page 2, paragraph 20 page 3, paragraph 31 page 4, paragraph 38 page 5, paragraphs 41, 42 claims 1, 2, 10, 14, 18, 19, 22, 23, 28, 29 -----	1-6, 11, 13-20
P, X	WO 2006/081210 A (BOSTON SCIENT SCIMED INC [US]; RICHARD ROBERT E [US]) 3 August 2006 (2006-08-03) claims 1, 3, 10-15, 22-29 page 15, paragraph 60 - page 17, paragraph 64 page 23, paragraph 79 - page 24, paragraph 85 -----	1-6, 12-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1555278	A	20-07-2005	AU 2005205409 A1	28-07-2005
			CA 2553619 A1	28-07-2005
			CN 1910217 A	07-02-2007
			JP 2007522274 T	09-08-2007
			WO 2005068533 A1	28-07-2005
			US 2007155906 A1	05-07-2007
US 2005112172	A1	26-05-2005	EP 1686924 A2	09-08-2006
			JP 2007520260 T	26-07-2007
			WO 2005053571 A2	16-06-2005
WO 2006081210	A	03-08-2006	CA 2594993 A1	03-08-2006
			EP 1843806 A2	17-10-2007
			US 2006165753 A1	27-07-2006