${\bf (19)}\ World\ Intellectual\ Property\ Organization$

International Bureau



) | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1

(43) International Publication Date 11 May 2006 (11.05.2006)

PCT

(10) International Publication Number WO 2006/049790 A3

(51) International Patent Classification:

 A61L 2/02 (2006.01)
 A61L 27/54 (2006.01)

 A61L 2/08 (2006.01)
 A61L 27/56 (2006.01)

 A61L 2/20 (2006.01)
 A61L 27/58 (2006.01)

 A61L 27/44 (2006.01)
 A61F 2/28 (2006.01)

(21) International Application Number:

PCT/US2005/035692

(22) International Filing Date: 4 October 2005 (04.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10/977,658 29 October 2004 (29.10.2004) U

(71) Applicant (for all designated States except US): DEPUY SPINE, INC. [US/US]; 325 Paramount Drive, Raynham, MA 02767 (US).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KADIYALA, Sudhakar [US/US]; 40 Hagen Road, Newton, MA 02459 (US).
- (74) Agents: JOHNSON, Philip, S. et al.; Johnson & Johnson, One Johnson & Johnson Plaza, New Brunswick, NJ 08933 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

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

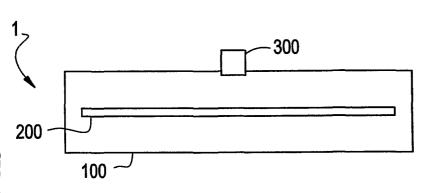
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 27 July 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND KITS FOR ASEPTIC FILLING OF PRODUCTS



(57) Abstract: This invention relates to methods and kits that minimize the risks and challenges associated with sterilization of multi-component medical devices (1).



INTERNATIONAL SEARCH REPORT

ernational application No PCT/US2005/035692

A. CLASSIFICATION OF SUBJECT MATTER A61L2/02 A61L2/08

A61L27/56

A61L27/58

A61L2/20 A61F2/28 A61L27/44

A61L27/54

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 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 practical, search terms used)

EPO-Internal, WPI Data, PAJ, EMBASE, COMPENDEX, BIOSIS

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Х	WO 99/59500 A (THE CLEVELAND CLINIC FOUNDATION) 25 November 1999 (1999-11-25) page 3, line 28 - page 7, line 11; figure 1; example 1	1-21,23, 24,26
Υ	1, example 1	22,25
Υ	EP 1 348 453 A (DEPUY ACROMED, INC; DEPUY SPINE, INC) 1 October 2003 (2003-10-01) paragraph [0011] - paragraph [0014] paragraph [0033] - paragraph [0034] paragraph [0071]	22,25
X	US 2004/071668 A1 (BAYS F. BARRY ET AL) 15 April 2004 (2004-04-15) paragraph [0027] - paragraph [0032] paragraph [0041] - paragraph [0054]; figures 1,2,5,6A,6B,7	20,21, 23,24,26
	-/	

X Further documents are listed in the continuation of Box C.	X 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 20 March 2006	Date of mailing of the international search report 24/05/2006
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 Edmueller, P

INTERNATIONAL SEARCH REPORT

ernational application No

CICantino	tion) DOCUMENTS CONCIDENTS TO BE DELEVANT	701/03/2005/03/569/2		
C(Continua				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	WO 02/068010 A (THE CLEVELAND CLINIC FOUNDATION) 6 September 2002 (2002-09-06) page 5, line 15 - page 15, line 18 page 19, line 1 - page 19, line 25; figures 1-3,2A,3A,3B,8	20,21, 23,24,26		
X	WO 02/40963 A (VITA SPECIAL PURPOSE CORPORATION) 23 May 2002 (2002-05-23) paragraph [0038] - paragraph [0067]; figures 4,5A,5B,6A,6B,6C; example 1	1-21,23, 24,26		
А	WO 96/40297 A (STRYKER CORPORATION) 19 December 1996 (1996-12-19) page 3, line 2 - page 29, line 15; examples 1-4	1-26		
Α	IJIRI S ET AL: "Effect of Sterilization on Bone Morphogenetic Protein" JOURNAL OF ORTHOPAEDIC RESEARCH, THE JOURNAL OF BONE AND JOINT SURGERY, INC.,, US,	1–26		
	vol. 12, no. 5, September 1994 (1994-09), pages 628-636, XP009017871 ISSN: 0736-0266 the whole document			
, ,				
,				
ļ				
Ì				

INTERNATIONAL SEARCH REPORT

Information on patent family members

recrnational application No PCT/US2005/035692

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9959500	A	25-11-1999	AU AU AU CA EP JP JP WO US	755925 B2 4199499 A 714547 B2 4271297 A 2335851 A1 0912205 A2 1085842 A2 2001502561 T 2002515288 T 9800174 A2 5824084 A	02-01-2003 06-12-1999 06-01-2000 21-01-1998 25-11-1999 06-05-1999 28-03-2001 27-02-2001 28-05-2002 08-01-1998 20-10-1998
EP 1348453	A	01-10-2003	AT AU CA JP US	313346 T 2003203652 A1 2423994 A1 2003325164 A 2003185803 A1	15-01-2006 23-10-2003 29-09-2003 18-11-2003 02-10-2003
US 2004071668	A1	15-04-2004	NONE		
WO 02068010	Α	06-09-2002	BR CA CN EP JP MX US	0207722 A 2439747 A1 1503683 A 1399199 A1 2005506102 T PA03007740 A 2002161449 A1	30-08-2005 06-09-2002 09-06-2004 24-03-2004 03-03-2005 12-11-2004 31-10-2002
WO 0240963	A	23-05-2002	NONE		'
WO 9640297	A	19-12-1996	AT AU CA DE DE EP JP JP US US	232401 T 714963 B2 6333596 A 2223049 A1 69626205 D1 69626205 T2 0837701 A1 3430474 B2 11506360 T 3483870 B2 2002191686 A 5674292 A 6028242 A	15-02-2003 13-01-2000 30-12-1996 19-12-1996 20-03-2003 12-02-2004 29-04-1998 28-07-2003 08-06-1999 06-01-2004 09-07-2002 07-10-1997 22-02-2000