

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/BR2018/050239

A. CLASSIFICATION OF SUBJECT MATTER		
IPC: A61F5/01 (2006.01), A61F5/05 (2006.01), A61F13/04 (2006.01), A61L15/12 (2006.01), A61L15/14 (2006.01), C08J5/00 (2006.01), C08L67/04 (2006.01) CPC: A61F5/0102, A61F13/041, A61L15/125		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) <b>A61F5/01, A61F5/05, A61F13/04, A61L15/12</b>		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched <b>Banco de Patentes Brasileiro INPI-Br, Google Patents</b>		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) <b>EPODOC, USPTO</b>		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012101417 AI (JOSEPH MARK [US]) 26 April 2012 (2012-04-26) The whole document	1 to 8
X	US 6358220 B I (BRAUN KARL OTTO KG [DE]) 19 March 2002 (2002-03-19) The whole document	1 to 8
A	WO 9403211 AI (ARNOLD BRIAN [GB]) 17 February 1994 (1994-02-17) The whole document	1 to 8
A	US 6110134 A (SMITH NEPHEW INC [US]) 29 August 2000 (2000-08-29) The whole document	1 to 8
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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	"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
"E"	earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search <b>30/08/2018</b>		Date of mailing of the international search report 13/09/2018
Name and mailing address of the ISA/ INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL Rua Mayrink Veiga nº 9, 6º andar cep: 20090-910, Centro - Rio de Janeiro/RJ Facsimile No. <b>+55 21 3037-3663</b>		Authorized officer <b>Leticia Pedretti Ferreira</b> Telephone No. <b>+55 21 3037-3493/3742</b>

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/BR2018/050239

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4226230 A (UNION CARBIDE CORP) 07 October 1980 (1980-10-07) The whole document	1 to 8

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/BR2018/050239

US 2012101417 A1	2012-04-26	US 8951217 B2 BR PI1008286 A2 CN 102421394 A CN 104739558 A EP 2400935 A1 JP 2012518516 A JP 5615849 B2 MX 2011008930 A US 2015238343 A1 US 9757265 B2 US 2018055671 A1 WO 2010099130 A1	2015-02-10 2016-03-15 2012-04-18 2015-07-01 2012-01-04 2012-08-16 2014-10-29 2011-12-16 2015-08-27 2017-09-12 2018-03-01 2010-09-02
US 6358220 B1	2002-03-19	AT 323456 T CA 2298969 A1 DE 19907043 A1 DE 50012588 D1 DK 1029521 T3 ES 2259581 T3 JP 2000296147 A JP 4623793 B2	2006-05-15 2000-08-19 2000-08-31 2006-05-24 2006-08-07 2006-10-16 2000-10-24 2011-02-02
WO 9403211 A1	1994-02-17	AU 4722593 A CA 2141686 A1 EP 0653944 A1 GB 9216775 D0 JP H08500748 A	1994-03-03 1994-02-17 1995-05-24 1992-09-23 1996-01-30
US 6110134 A	2000-08-29	NONE	
US 4226230 A	1980-10-07	US 4286586 A	1981-09-01