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(54) Title: GRAFTED POLYMERS AND USES THEREOF

(57) Abstract: The invention features grafted polymer systems for use in medical devices and/or for the delivery of active agents. The grafted polymers include at least one transport moiety, a linear backbone segment, and a pendant segment.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2007/002819

A. CLASSIFICATION OF SUBJECT MATTER IPC: <i>C08F 283/00</i> (2006.01), <i>A61K 9/00</i> (2006.01), <i>A61L 27/16</i> (2006.01), <i>A61L 31/04</i> (2006.01), <i>A61L 31/16</i> (2006.01), <i>A61P 29/00</i> (2006.01) (more IPCs on the last page) 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) IPC: <i>C08F 283/00</i> (2006.01), <i>A61K 9/00</i> (2006.01), <i>A61L 27/16</i> (2006.01), <i>A61L 31/04</i> (2006.01), <i>A61L 31/16</i> (2006.01), <i>A61P 29/00</i> (2006.01), <i>A61P 9/00</i> (2006.01), <i>C08L 51/08</i> (2006.01), <i>G01N 33/53</i> (2006.01)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used) DWPI/Delphion, Canadian Patent Database, STN, Scopus, PubMed, Google™ Scholar (grafted or graft, polymer, transport moiety, tail, end group, backbone, pendant, polycondensate, polyolefin, dendron, active agent, complexing moiety, drug, delivery, medical device)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/10805 A1 (MEADOX MEDICALS, INC) 19 March 1998 (19-03-1998) see page 7, line 15 - page 11, line 5; page 11, line 23 - page 13, line 15; page 15, lines 6-13; page 17, lines 1-7; page 18, line 22 - page 19, line 7; page 19, line 21-	1, 3-7, 10-12, 15, 23, 25 and 27-30
Y	page 20, line 23; and claim 31-39.	16-29
X	Hester et al. "ATRP of amphiphilic graft copolymers based on PVDF and their use as membrane additives", <i>Macromolecules</i> 2002, 35(20), 7652-7661. see pages 7655-7656, the formulae in Figure 1b, Figures 2b and 2c, and page 7654, Table 2.	1, 4-7, 12-13 and 15
Y	WO 02/098477 A2 (SANTERRE, PAUL, J.) 12 December 2002 (12-12-2002) see the whole document	16-29
P, A	WO 2007/004067 A2 (INTERFACE BIOLOGICS INC.) 11 January 2007 (11-01-2007) see the whole document	
<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 :	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		
Date of the actual completion of the international search 04 February 2008 (04-02-2008)	Date of mailing of the international search report 29 February 2008 (29-02-2008)	
Name and mailing address of the ISA/CA Canadian Intellectual Property Office Place du Portage I, C114 - 1st Floor, Box PCT 50 Victoria Street Gatineau, Quebec K1A 0C9 Facsimile No.: 001-819-953-2476	Authorized officer Connie Kuang 819- 934-3597	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2007/002819

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 2005/110485 A1 (INTERFACE BIOLOGICS INC.) 24 November 2005 (24-11-2005) see the whole document	

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

1. Claim Nos. : 33-36

because they relate to subject matter not required to be searched by this Authority, namely :

Claims 33-36, directed to a method for treatment of the human or animal body by surgery or therapy which the International Search Authority is not required to search (Rule 39.1 (iv), PCT). Regardless, this Authority has carried out a search based on the alleged effect(s) or purpose(s)/use(s) of the article defined in claims 33-36.

2. Claim Nos. : 1-4

because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :

Claims 1-4 are so broad that a meaningful search of all possible embodiments could not be performed. For this reason, the search of these claims was restricted to the embodiments encompassed by claims 5-15 and the examples given in the description.

3. Claim Nos. :

because they are dependant claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows :

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

Remark on Protest The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

No protest accompanied the payment of additional search fees.

A61P 9/00 (2006.01), *C08L 51/08* (2006.01), *G01N 33/53* (2006.01)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/IB2007/002819

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