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- (88) **Date of publication of the international search report:**
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(54) **Title:** IMPROVED FILTER FOR REMOVING SUBSTANCES FROM BLOOD OR FROM BLOOD DERIVATIVES, AND A METHOD FOR OBTAINING IT

(57) **Abstract:** A filter for removing substances, including leukocytes and platelets by way of non-limiting example, from whole blood or from blood derivatives, said filter comprising a casing containing a layered filter element, at least one layer of this latter being coated with polyurethane; this polyurethane has a molecular weight between 10,000 and 20,000 Dalton. A method for forming the layered filter element for a filter such as the aforescribed is also claimed, in which at least one layer of this filter element is impregnated with polyurethane by immersing it in a container of a mixture in which said polyurethane is present. This mixture consists of a solution in which the polyurethane is dissolved in a polar solvent such as water.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2011/001792

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M1/36 B01D39/0Q
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)
A61M B01D

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 practicable, 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	EP 1 897 571 AI (FRESENIUS HEMOCARE ITALIA S R [IT]) 12 March 2008 (2008-03-12) cited in the appl icati on paragraph [0049] - paragraph [0052] ; claims 1-12 -----	1,3-5
A	Wo 2005/113136 AI (UNIV SOUTHAMPTON [GB] ; BRADLEY MARK [GB] ; SHISHIDO JUNICHI [JP] ; THABU) 1 December 2005 (2005-12-01) page 10, paragraph 2 - page 18, paragraph 1 -----	1
A	JP 1 224324 A (TERUMO CORP) 7 September 1989 (1989-09-07) abstract ----- - / - -	1



Further documents are listed in the continuation of Box C.



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 application or patent 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

19 April 2013

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02/05/2013

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INTERNATIONAL SEARCH REPORT

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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	CN 100 346 861 C (UNIV DONGHUA [CN]) 7 November 2007 (2007-11-07)	6, 7, 10-12
Y	the whole document -----	8, 9
Y	US 2002/122939 A1 (WEI NING [US] ET AL) 5 September 2002 (2002-09-05)	8, 9
A	abstract paragraphs [0015] - [0018], [0030] - [0033] -----	10-12

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2011/001792

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of 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. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
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:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 64(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:

see additional sheet

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 an 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 claims 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 claims 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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5

A filter for removing from blood or blood products substances such as leukocytes and platelets

2. claims: 6-12

A method for manufacturing a layered filtering body for a filter apt to remove from blood or blood products substances such as, in particular, leucocytes and platelets.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2011/001792

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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