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(81) Designated States (unless otherwise indicated, for every
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CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ,
EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,

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KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
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MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI
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NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of
the earlier application (Rule 4.17(iii))

Published:

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(88) Date of publication of the international search report:
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(54) Title: PATHOGEN INACTIVATION OF WHOLE BLOOD

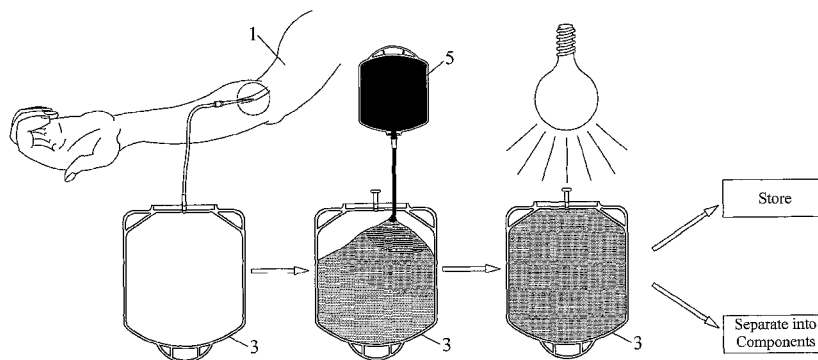


Figure 1

(57) Abstract: This invention is directed toward a method of pathogen inactivating whole blood. The steps include collecting whole blood from a donor into a bag; illuminating the whole blood with light at a sufficient energy so that an alloxazine photosensitizer present in the whole blood may be photolyzed to inactivate any pathogens which may be present in the whole blood; and storing the pathogen inactivated whole blood. The invention also includes a method of separating the pathogen inactivated whole blood into components.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/071541

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61L2/00
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)
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)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/063902 A2 (GAMBRO INC [US]) 7 August 2003 (2003-08-07)	1-13
Y	page 34, paragraph 4 - page 35, paragraph 2 page 31, paragraph 2-4; claims; examples ----- -/--	14-29

☒ 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 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

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"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

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/071541

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/96340 A1 (GAMBRO INC [US]) 20 December 2001 (2001-12-20)	1-24
Y	page 6, lines 35-37; claims; figures; examples page 8, lines 1-3 page 23, lines 29-34 page 25, lines 4-22; figures 6,7 page 28, lines 21-30 page 10, lines 30-35 page 13, lines 1-11 page 14, lines 1-9, 25 - page 15, line 2 page 15, lines 21-25 page 16, lines 16-23 page 17, lines 11-23 claims; figure 23; examples	25-29
X	WO 02/26270 A2 (GAMBRO INC [US]) 4 April 2002 (2002-04-04)	1-8, 11-13
Y	page 1, paragraphs 1,2 page 2, paragraph 2 page 4, paragraph 5 - page 5, paragraph 3 page 6, paragraph 2; claim 30; figures 1,6	14-29
X	WO 2004/018471 A1 (GAMBRO INC [US]) 4 March 2004 (2004-03-04)	1,4,8, 11-29
	page 8, paragraphs 2, 4 page 6, paragraphs 2,3; claims page 1, paragraph 2	
Y	WO 03/089027 A2 (GAMBRO INC [US]) 30 October 2003 (2003-10-30)	14-29
	pages 1, 7-10,; figure 11	
Y	US 5 545 516 A (WAGNER STEPHEN J [US]) 13 August 1996 (1996-08-13)	14-29
	column 3, lines 19-35 column 5, lines 23-27 column 6, lines 22-26, 55 - column 4 column 7, lines 22-29 column 8, lines 59-67; example 3	
Y	WO 02/096471 A2 (GAMBRO INC [US]) 5 December 2002 (2002-12-05)	14-24
	page 3, line 14 - page 4, line 9 page 22, lines 29-31; figures 15-18 page 23, lines 10-20 page 24, lines 15-26 page 25, line 4 - page 26, line 16; claims; examples	
Y	US 2004/238444 A1 (RAGUSA MICHAEL [US]) 2 December 2004 (2004-12-02)	14-24
	paragraphs [0005], [0008], [0009]; figures	
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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2008/071541

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 304 113 A (SIEBER FRITZ [US] ET AL) 19 April 1994 (1994-04-19)	14-24
A	column 6, lines 3-40 column 5, lines 51-63 -----	25-29
A,P	US 2008/096750 A1 (HLAVINKA DENNIS J [US] ET AL) 24 April 2008 (2008-04-24) paragraphs [0003], [0060], [0067], [0068], [0073], [0074], [0082], [0083] -----	1-29

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/071541

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 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:

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.:

1-29
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: 1-13

Methods for inactivating pathogens in whole blood by means of illumination in the presence of an alloxazine photosensitizer. The method involves the steps of collecting the blood from a donor and storing the inactivated blood. Separation by undefined means in the dependent claims.

2. claims: 14-24

Method for inactivating pathogens in whole blood by means of illumination in the presence of an alloxazine photosensitizer. Further involving any separation and (additionally by) expression of blood components. No step of obtaining or storing the blood.

3. claims: 25-29

A specific method for separating pathogen inactivated whole blood into components including the use of a rotor and squeezing of a first bag to transfer a component to a second bag.

4. claims: 30, 31

A pre-connected bag and solution set comprising bags and transfer tubing.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/071541

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