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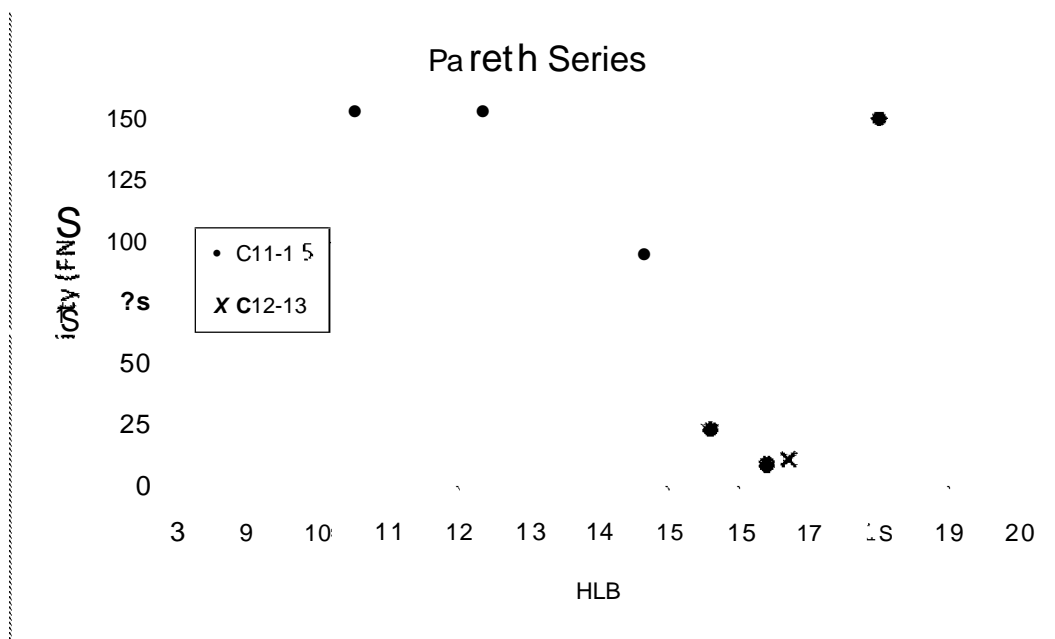
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[Continued on next page]

(54) Title: COMPOSITIONS COMPRISING MACROMOLECULAR ASSEMBLIES OF LIPID AND SURFACTANT

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(57) Abstract: A composition comprising lipid and surfactant, characterised in that the lipid and surfactant are in the form of macro-molecular assemblies of less than 100 nm in diameter. The surfactant can have a HLB number of less than 20, or be an ether or ester surfactant, or be ionic.



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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).

— *before the expiration of the time limit for amending the  
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amendments*

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— *with international search report*

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18 September 2008

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2007/050730**A. CLASSIFICATION OF SUBJECT MATTER**

INV. A61K8/02 A61K8/14 A61K8/55 A61K8/97 A61Q19/00  
A61K9/107 G01N33/68 A61K47/48

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)

A61K GOIN

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 6 897 200 B1 (BURKE THOMAS G [US] ET AL) 24 May 2005 (2005-05-24) column 3, line 12 column 13, line 55 column 12, lines 64,65; examples 3,7 -----	1,2, 6-177
X	US 2002/102297 A1 (SAFINYA CYRUS R [US] ET AL) 1 August 2002 (2002-08-01) paragraphs [0135], [0158], [0179], [0188]; claim 31; examples 1,2,4 -----	1,2, 6-177
X	US 6 846 489 B1 (GARCON NATHALIE MARIE-JOSEPHE [BE] ET AL) 25 January 2005 (2005-01-25) abstract; example 1.1 -----	1,2, 6-177
X	US 5 785 976 A (WESTESEN KIRSTEN [DE] ET AL) 28 July 1998 (1998-07-28) examples 3,6,7,11,21-23,25,30-32 -----	1,2, 6-177

 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<sup>1</sup>' 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<sup>1</sup>' 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<sup>1</sup>' 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'&<sup>1</sup>' document member of the same patent family

Date of the actual completion of the international search

25 April 2008

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2007/050730

## 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 allsearchable 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.:

see annex

### 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.

## RJRTHER INFORMATION CONTINUED FROM PCT/ASA/ 210

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

## 1. claims: 1-2,6-177

a composition comprising lipid and surfactant, characterised in that the surfactant has an HLB number of less than 20 and in that the lipid and surfactant are in the form of macromolecular assemblies of less than 100 nm in diameter, and a formulation/pharmaceutical preparation/hydrogel patch/kit comprising it, and uses/processes thereof

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## 2. claims: 3, 6-23,39-177

a composition comprising lipid and surfactant, characterised in that the surfactant is an ether surfactant and in that the lipid and surfactant are in the form of macromolecular assemblies of less than 100 nm in diameter, and a formulation/pharmaceutical preparation/hydrogel patch/kit comprising it, and uses/processes thereof

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## 3. claims: 4,24-31,39-177

a composition comprising lipid and surfactant, characterised in that the surfactant is an ester surfactant and in that the lipid and surfactant are in the form of macromolecular assemblies of less than 100 nm in diameter, and a formulation/pharmaceutical preparation/hydrogel patch/kit comprising it, and uses/processes thereof

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## 4. claims: 5,32-177

a composition comprising lipid and surfactant, characterised in that the surfactant is an ionic surfactant and in that the lipid and surfactant are in the form of macromolecular assemblies of less than 100 nm in diameter, and a formulation/pharmaceutical preparation/hydrogel patch/kit comprising it, and uses/processes thereof

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/GB2007/050730

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
<b>US</b> 6897200	<b>B1</b> 24-05-2005	<b>UO</b> 0021370, <b>A1</b>	20-04-2000
<b>us</b> 2002102297	<b>A1</b> 01-08-2002	<b>NONE</b>	
<b>us</b> 6846489	<b>B1</b> 25-01-2005	<b>NONE</b>	
<b>us</b> 5785976	<b>A</b> 28-07-1998	<b>NONE</b>	