#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(10) International Publication Number WO 2011/131676 A3

(43) International Publication Date 27 October 2011 (27.10.2011)

(51) International Patent Classification: A61K 8/06 (2006.01) A61K 8/41 (2006.01) A61K 8/31 (2006.01) A610 5/08 (2006.01) A61K 8/34 (2006.01) A61Q 5/10 (2006.01)

(21) International Application Number:

PCT/EP2011/056245

(22) International Filing Date:

19 April 2011 (19.04.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

1053065 22 April 2010 (22.04.2010) FR 61/329,781 30 April 2010 (30.04.2010) US

- (71) Applicant (for all designated States except US): L'OREAL [FR/FR]; 14 rue Royale, F-75008 Paris (FR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DECONINCK, Gautier [FR/FR]; 17 rue Marcelin Berthelot, F-95210 Saint Gratien (FR). GOGET, Caroline [FR/FR]; 3 rue Etienne Jodelle, F-75018 Paris (FR).
- (74) Agent: WATTREMEZ, Catherine; l'Oréal, D.I.P.I., 25-29 quai Aulagnier, F-92665 Asnières-sur-Seine Cedex (FR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available); ARIPO (BW. GH. GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- (88) Date of publication of the international search report:

7 June 2012



(54) Title: DYEING OR LIGHTENING PROCESS AND INVERSE EMULSION FOR TREATING THE HAIR COMPRISING A PARTICULAR SOLVENT

(57) Abstract: One subject of the present invention is a process for dyeing and/or lightening human keratin fibres in which a water-in-oil inverse emulsion is applied to said fibres, said emulsion comprising: (a) at least 30% by weight of one or more liquid fatty substances; (b) one or more polyols or polyol ( $C_1$ - $C_4$ )alkyl ethers having a Hansen  $\delta_H$  parameter value of less than or equal to 25 MPa<sup>1/2</sup> at 25°C that are different from the liquid fatty substances; and (c) one or more alkalinizing agents, in the presence of a composition comprising one or more oxidizing agents and preferably hydrogen peroxide. It furthermore relates to a water-in-oil (W/O) inverse emulsion comprising: (a) at least 30% by weight of one or more liquid fatty substances; (b) one or more polyols or polyol (C₁-C₄)alkyl ethers having a Hansen  $\delta_H$  parameter value of less than or equal to 25 MPa¹¹² at 25°C that are different from the liquid fatty substances a); (c) one or more alkalinizing agents; and (d) at least one oxidation dye and/or at least one direct dye. Another subject of the invention is constituted of two-compartment devices containing, in one compartment, an emulsion according to the invention and, in the other compartment, a composition comprising one or more oxidizing agents.

### INTERNATIONAL SEARCH REPORT

International application No PCT/EP2011/056245

a. classification of subject matter INV. A61K8/06 A61K8

A61Q5/10

A61K8/31

A61K8/34

A61K8/41

A61Q5/08

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)

A61K A61Q

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, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
A	CHEMICAL ABSTRACTS, vol. 054, no. 02, 25 January 1960 (1960-01-25), Columbus, Ohio, US; abstract no.: 104:135869, Kaneda, Hisashi et al.: "Cosmetic water-in-oil emulsions containing amines", XP002614612 abstract & JP 60 246306 A (SHISEIDO CO LTD) 6 December 1985 (1985-12-06)	1-16				
A	EP 1 086 687 A2 (BEIERSDORF AG [DE]) 28 March 2001 (2001-03-28) example 4	1-16				
Υ	EP 0 823 250 A2 (SHISEIDO CO LTD [JP]) 11 February 1998 (1998-02-11) examples 1-5,1-9,12	1-16				
	-/					

"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  "P" document published prior to the international filing date but	"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 March 2012	Date of mailing of the international search report 27/03/2012

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016

X Further documents are listed in the continuation of Box C.

Authorized officer

X See patent family annex.

Lenzen, Achim

# **INTERNATIONAL SEARCH REPORT**

International application No
PCT/EP2011/056245

C(Continua	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	· · · · · · · · · · · · · · · · · · ·
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Υ	EP 1 428 509 A1 (OREAL [FR]) 16 June 2004 (2004-06-16) paragraphs [0010], [0013], [0045] - [0049]	1-16
Υ	EP 1 219 285 A2 (KAO CORP [JP]) 3 July 2002 (2002-07-03) paragraphs [0008], [0014] - [0019]	1-16
A	"HANSEN SOLUBILITY PARAMETERS OF SOLVENTS", INDUSTRIAL SOLVENTS HANDBOOK, XX, XX, 1 January 1996 (1996-01-01), pages 35-56, XP000944977, the whole document	1-16
Α	WO 2008/047055 A2 (OREAL [FR]; DE BONI MAXIME [JP]) 24 April 2008 (2008-04-24) claim 1	1-16
E	EP 2 338 571 A1 (OREAL [FR]) 29 June 2011 (2011-06-29) compositions A1 and A2; paragraph [0234]	1-16
E	EP 2 338 572 A1 (OREAL [FR]) 29 June 2011 (2011-06-29) compositions A1 and A2; paragraph [0235]	1-16
E	WO 2011/076646 A2 (OREAL [FR]; GOGET CAROLINE [FR]; DECONINCK GAUTIER [FR]) 30 June 2011 (2011-06-30) examples 1,2	1-16
E	WO 2011/076672 A2 (OREAL [FR]; GOGET CAROLINE [FR]; DECONINCK GAUTIER [FR]) 30 June 2011 (2011-06-30) example 1	1-16
E	WO 2011/076647 A2 (OREAL [FR]; ASCIONE JEAN-MARC [FR]; DECONINCK GAUTIER [FR]; GOGET CARO) 30 June 2011 (2011-06-30) page 24, line 30 - line 39 claims 1,19,20	1-16
E	WO 2011/076792 A1 (OREAL [FR]; COTTERET JEAN [FR]; DECONINCK GAUTIER [FR]; GOGET CAROLINE) 30 June 2011 (2011-06-30) example 1	1-16
E	WO 2011/076665 A1 (OREAL [FR]; DECONINCK GAUTIER [FR]; GOGET CAROLINE [FR]; HUCHET ARNAUD) 30 June 2011 (2011-06-30) example 1	1-16

1

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2011/056245

				<b>,</b> ,	•	•
Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1086687	A2	28-03-2001	DE EP	19945283 1086687		29-03-2001 28-03-2001
EP 0823250	A2	11-02-1998	DE DE EP US	69635413 69635413 0823250 5817155	T2 A2	15-12-2005 10-08-2006 11-02-1998 06-10-1998
EP 1428509	A1	16-06-2004	EP FR	1428509 2848438		16-06-2004 18-06-2004
EP 1219285	A2	03-07-2002	DE EP US	60127521 1219285 2002139957	A2	06-12-2007 03-07-2002 03-10-2002
WO 2008047055	A2	24-04-2008	CN EP FR JP US WO	101528192 2104486 2907005 2010506892 2010306929 2008047055	A2 A1 A A1	09-09-2009 30-09-2009 18-04-2008 04-03-2010 09-12-2010 24-04-2008
EP 2338571	A1	29-06-2011	CN EP FR JP US	102100641 2338571 2954121 2011132239 2011146007	A1 A1 A	22-06-2011 29-06-2011 24-06-2011 07-07-2011 23-06-2011
EP 2338572	A1	29-06-2011	CN EP FR JP KR US	102100643 2338572 2954127 2011132240 20110073299 2011155167	A1 A1 A A	22-06-2011 29-06-2011 24-06-2011 07-07-2011 29-06-2011 30-06-2011
WO 2011076646	A2	30-06-2011	NON	E		
WO 2011076672	A2	30-06-2011	FR WO			24-06-2011 30-06-2011
WO 2011076647	A2	30-06-2011	NON	 E		
WO 2011076792	A1	30-06-2011	FR WO	2011076792	A1	
WO 2011076665	A1	30-06-2011		2954113 2011076665	A1	24-06-2011 30-06-2011