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Karin [DE/DE]; Steinbruchweg 15, 64372 Ober-Ramstadt (DE).

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PCT/IB2007/052860(74) Common Representative: **THE PROCTER & GAMBLE COMPANY**; c/o Eileen L. Hughett, The Procter & Gamble Company, Winton Hill Business Center, 6250 Center Hill Avenue, Cincinnati, Ohio 45224 (US).

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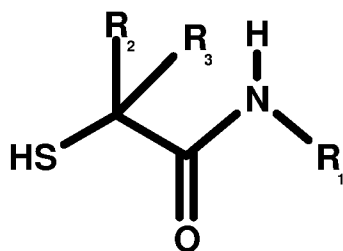
(71) Applicant (for AL, AT, BA, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, PL, PT, RO, RS, SE, SI, SK, TR only): **WELLA AKTIENGESELLSCHAFT** [DE/DE]; Berliner Allee 65, 64274 Darmstadt (DE).**Published:**

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **CASSIER, Thorsten** [DE/DE]; Gabriele-von-Fechenbach-Str.5, 64807 Dieburg (DE). **LEDE, Michael** [DE/DE]; Im Kammereck 1, 63329 Egelsbach (DE). **STEINBRECHT,**(88) Date of publication of the international search report:
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(54) Title: METHOD AND COMPOSITION FOR PERMANENTLY SHAPING HAIR



(I)

(57) Abstract: A composition for permanent hair shaping comprising (i) 1 to 30 % by weight of an N-alkyl-2-mercaptoacetamide of formula (I), or the salt thereof, wherein R₁ is a straight chain alkyl residue with 3 to 6 carbon atoms or a straight chain hydroxyalkyl with 3 to 6 carbon atoms, R₂ and R₃ are, independently from each other, hydrogen or straight chain alkyl residues with 1 to 3 carbon atoms, (ii) 0.1 to 15 % by weight of at least one alkalinizing agent selected from the group consisting of lithium hydroxide, earth alkali metal hydroxides; hydroxyalkyl substituted amines with 1 to 3 alkyl residues comprising 1 to 4 carbon atom in the alkyl residue

and one or two hydroxyl groups on at least one of said alkyl residues; 2,2-imino-bis-ethanoliminourea (guanidine carbonate), tetrahydro-1,4-oxazine, 2-aminoethansulfonic acid and alkaline amino acids; and (iii) 5 to 95 % by weight of water, and the method of permanently shaping hair using said composition.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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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.
X	WO 99/06013 A2 (WELLA AG [DE]; DANNECKER BEATE [DE]; LANG GUENTHER [DE]; HANEFELD WOLF) 11 February 1999 (1999-02-11) page 4, line 1 - line 7	1-15, 18-21
Y	claims 1-10 examples 5,6 page 3, line 15 - line 21 page 5, line 4 - line 9 & EP 0 969 791 A 12 January 2000 (2000-01-12) cited in the application ----- -/--	16,17

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

☒ See patent family annex.

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Siatou, Evangelia

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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.
Y	DATABASE WPI Week 198404 Derwent Publications Ltd., London, GB; AN 1984-020098 XP002331572 & JP 58 210006 A (TANIMURA T) 7 December 1983 (1983-12-07) abstract -----	16,17
A	US 5 378 454 A (BURMEISTER FREDERICK H. [US]) 3 January 1995 (1995-01-03) column 4, line 5 - line 12 -----	1-21
A	WO 98/30197 A (WELLA AG [DE]; LANG GUENTHER [DE]; DANNECKER BEATE [DE]; HANEFELD WOLF) 16 July 1998 (1998-07-16) page 3, line 27 - page 4, line 8 page 5, line 6 - line 11 claims 1-10 -----	1-21
A	DE 196 18 445 A1 (WELLA AG [DE]) 13 November 1997 (1997-11-13) claims 1-10 page 3, line 27 - line 33 page 3, line 66 - page 4, line 2 -----	1-21
A	DE 11 44 440 B (OREAL) 28 February 1963 (1963-02-28) cited in the application the whole document -----	1-21
A	WO 2005/020943 A (HANS SCHWARZKOPF & HENKEL GMBH [DE]; MUELLER BURKHARD [DE]; SCHELLIN A) 10 March 2005 (2005-03-10) the whole document -----	1-21

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2007/052860

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9906013	A2	11-02-1999	EP 0969791 A2 ES 2212338 T3 JP 3964938 B2 JP 2001504138 T US 6264932 B1	12-01-2000 16-07-2004 22-08-2007 27-03-2001 24-07-2001
EP 0969791	A	12-01-2000	WO 9906013 A2 ES 2212338 T3 JP 3964938 B2 JP 2001504138 T US 6264932 B1	11-02-1999 16-07-2004 22-08-2007 27-03-2001 24-07-2001
JP 58210006	A	07-12-1983	JP 1508072 C JP 63058805 B	26-07-1989 17-11-1988
US 5378454	A	03-01-1995	NONE	
WO 9830197	A	16-07-1998	BR 9707969 A EP 0895470 A1 ES 2273377 T3 JP 2000507272 T JP 3956238 B2 US 6153180 A	27-07-1999 10-02-1999 01-05-2007 13-06-2000 08-08-2007 28-11-2000
DE 19618445	A1	13-11-1997	BR 9702246 A WO 9741828 A1 EP 0840592 A1 ES 2114849 T1 JP 11509556 T US 6153178 A	17-02-1999 13-11-1997 13-05-1998 16-06-1998 24-08-1999 28-11-2000
DE 1144440	B	28-02-1963	BE 571812 A FR 1197194 A NL 105377 C	27-11-1959
WO 2005020943	A	10-03-2005	AT 390175 T BR PI0409291 A DE 10338883 A1 EP 1656184 A1 JP 2007503379 T	15-04-2008 11-04-2006 24-03-2005 17-05-2006 22-02-2007