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(71) **Applicant**: **THE PROCTER & GAMBLE COMPANY** [US/US]; One Procter & Gamble Plaza, Cincinnati, Ohio 45202 (US).

(72) **Inventors**: **LANZALACO, Anthony, Charles**; One P&G Plaza, Cincinnati, OH 45202, Cincinnati, Ohio 45202 (US). **STARK, Cynthia, Marie**; One P&G Plaza, Cincinnati, OH 45202, Cincinnati, Ohio 45202 (US). **EYLEM, Cahit**; One P&G Plaza, Cincinnati, OH 45202, Cincinnati, Ohio 45202 (US). **HEAPE, Andrea, Kay**; One P&G Plaza, Cincinnati, OH 45202, Cincinnati, Ohio 45202 (US). **CETTI, Jonathan, Robert**; One P&G Plaza, Cincinnati, OH 45202, Cincinnati, Ohio 45202 (US).

(74) **Agent**: **GUFFEY, Timothy B.**; c/o The Procter & Gamble Company, Global Patent Services, 299 East 6th Street, Sycamore Building, 4th Floor, Cincinnati, OH 45202 (US).

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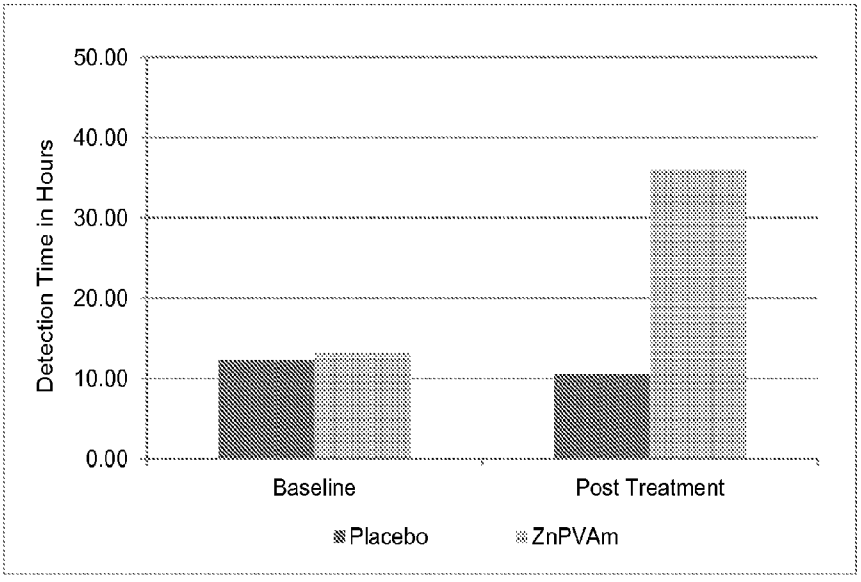
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[Continued on next page]

(54) **Title**: DEODORANT METHODS



(57) **Abstract**: Compositions including a polyvinylamine malodor control polymer and/or a metalated polyvinylamine malodor control polymer, an emollient, and water; and methods thereof are provided. Such compositions may be used to reduce or neutralize malodors on the body.

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD. A61Q17/00

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)
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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	WO 97/32480 A1 (NOVO NORDISK AS [DK]; JOHANSEN CHARLOTTE [DK]) 12 September 1997 (1997-09-12)	1-3,7
Y	page 2, line 22 - line 28 page 11, line 30 - line 36 examples 1-3 page 49, line 38 - page 50, line 2	1-13
Y	US 4 675 178 A (KLEIN WILLIAM L [US] ET AL) 23 June 1987 (1987-06-23) claims 1-5	1-13
Y	US 6 261 581 B1 (GEBHARDT NORBERT [DE] ET AL) 17 July 2001 (2001-07-17) tables 2-4	1-13

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

[X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA/	Authorized officer
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	US 2009/226394 A1 (CHAMP SIMON [DE] ET AL) 10 September 2009 (2009-09-10) claims 1-6 table 1	1-13
Y	WO 2012/078208 A1 (PROCTER & GAMBLE [US]; WOO RICKY AH-MAN [US]; HORENZIAK STEVEN ANTHONY) 14 June 2012 (2012-06-14) page 14, line 10 - page 16, line 18	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2013/050599

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9732480 A1	12-09-1997	AT 234012 T	15-03-2003
		AU 2091297 A	22-09-1997
		BR 9707836 A	27-07-1999
		CA 2248065 A1	12-09-1997
		CN 1215310 A	28-04-1999
		DE 69719736 D1	17-04-2003
		DE 69719736 T2	05-02-2004
		EP 0884950 A1	23-12-1998
		JP 2000506845 A	06-06-2000
		US 6287585 B1	11-09-2001
		WO 9732480 A1	12-09-1997
US 4675178 A	23-06-1987	AU 589179 B2	05-10-1989
		AU 5708686 A	06-11-1986
		CA 1275051 A1	09-10-1990
		EP 0200548 A2	05-11-1986
		US 4675178 A	23-06-1987
		ZA 8603268 A	30-12-1986
US 6261581 B1	17-07-2001	AT 218805 T	15-06-2002
		AU 717074 B2	16-03-2000
		AU 2023997 A	22-09-1997
		BR 9707833 A	27-07-1999
		CA 2248154 A1	12-09-1997
		CZ 9802790 A3	14-04-1999
		DE 19608555 A1	11-09-1997
		DE 59707501 D1	18-07-2002
		DK 0884945 T3	15-07-2002
		EP 0884945 A1	23-12-1998
		ES 2178757 T3	01-01-2003
		HU 9902557 A2	28-12-1999
		JP 4063881 B2	19-03-2008
		JP 2000506154 A	23-05-2000
		NO 984092 A	04-11-1998
		NZ 331592 A	28-02-2000
		PL 328772 A1	15-02-1999
		PT 884945 E	29-11-2002
		US 6261581 B1	17-07-2001
		WO 9732477 A1	12-09-1997
US 2009226394 A1	10-09-2009	AT 424437 T	15-03-2009
		AU 2006243200 A1	09-11-2006
		BR PI0611125 A2	09-11-2010
		CA 2607791 A1	09-11-2006
		CN 101171309 A	30-04-2008
		DE 102005021363 A1	16-11-2006
		EP 1879966 A1	23-01-2008
		ES 2320384 T3	21-05-2009
		JP 2008540381 A	20-11-2008
		KR 20080012336 A	11-02-2008
		US 2009226394 A1	10-09-2009
		WO 2006117382 A1	09-11-2006
WO 2012078208 A1	14-06-2012	AU 2012205613 A1	01-08-2013
		CA 2824857 A1	19-07-2012
		EP 2663339 A1	20-11-2013
		JP 2014504927 A	27-02-2014
		KR 20130105886 A	26-09-2013

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2013/050599

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 2012183489 A1	19-07-2012
		WO 2012078208 A1	14-06-2012
		WO 2012097033 A1	19-07-2012