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(54) Title: ANTIMICROBIAL COMPOSITIONS CONTAINING SYNERGISTIC COMBINATIONS OF QUATERNARY AMMONIUM COMPOUNDS AND ESSENTIAL OILS AND/OR CONSTITUENTS THEREOF

(57) Abstract: The present invention relates to compositions comprising quaternary ammonium compounds and essential oils or individual constituents thereof which exhibit enhanced antimicrobial effects. Such combinations may be comprised in lotions, gels, creams, soaps, etc. for application to skin or mucous membranes. The invention is based, at least in part, on the observation that synergistic antimicrobial effects are achieved with combinations of essential oils or individual constituents thereof and low concentrations of quaternary ammonium compounds.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8): **A01N 25/34(2006.01),65/00(2006.01),33/12(2006.01);C07C 277/00(2006.01),279/00(2006.01)**

 USPC: 424/404,725;564/234;514/643
 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)
 U.S. : 424/404,725; 564/234; 514/643

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)
 WEST, CAPLUS, MEDLINE, BIOSIS, SCISEARCH, LIFESCI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,753,270 (BEAUCHAMP et al) 19 May 1998 (19.05.1998), column 5, line 13 to column 7, line 42.	1-12, 29 and 30
X	WO 99/38505 (THE PROCTOR & GAMBLE COMPANY) 5 August 1999 (05.08.1999), entire document, especially page 7, lines 1-15.	1-12 and 29-31
X	US 5,116,602 (ROBINSON et al) 26 May 1992 (26.05.1992),column 5, line 58 to column 6, line 28.	1-12 and 30
A	US 4,963,591 (FOURMAN et al) 16 October 1990 (16.10.1990)	1-12, 25-28 and 30-32
A	ROSENTHAL, S.L. Effect of Medicaments on the Motility of the Oral Flora with Special Reference to the Treatment of Vincent's Infection. II. Journal of Dental Research. 1943, Volume 22, pages 491-494.	13-24

Further documents are listed in the continuation of Box C. See patent family annex.

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