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(54) Title: ORAL CARE PRODUCT AND METHODS OF USE AND MANUFACTURE THEREOF

(57) Abstract: This invention relates to methods of treating earh enamel lesions comprising applying an effective amount of a basic amino acid in free or salt form, together with fluoride to a patient in need thereof.

A. CLASSIFICATION OF SUBJECT MATTER*A61K 8/44(2006.01)i, A61K 8/20(2006.01)i, A61Q 11/00(2006.01)i*

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)

IPC as above

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)

eKOMPASS(KIPO internal), CAS(online), PUBMED, Google ; 'amino acid', 'fluoride', 'arginine', 'enamel lesion',

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6217851 B1 (KLEINBERG, ISRAEL et al.) 17 April 2001 See claims 22, 30; column 3 lines 21-33, column 5 lines 53-64.	13, 17
A	US 6524558 B2 (KLEINBERG, ISRAEL et al.) 25 FEBRUARY 2003 See column 5 lines 50-62; column 6 lines 15-26.	13, 17
A	US 4477429 A (SILBERING, STEVEN B et al.) 16 OCTOBER 1984 See claims 1, 2, 12, 22, 24 - 26, 31; column 1 line 6 - column 1 line 14 ; column 7 line 8 - column 7 line 14; column 9 line 6 - column 9 line 15.	13, 17
A	US 2007-0286820 A1 (PRENCIPE, MICHAEL et al.) 13 DECEMBER 2007 See claims 1, 3, 4 ; paragraphs [0007], [0022], [0029], [0032], [0033].	13, 17

 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 application or patent 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 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 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" 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

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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.: 1-11
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 1-11 are directed to a method of treatment of the human body by therapy or diagnostic methods. (Article 17(2)(a)(i) and Rule 39.1(iv)PCT)
2. Claims Nos.: 14-16, 18
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:
Claims 14, 15, 16, 18 are unclear, since there are no definition of "QLF or ECM value" in claims 14, 16, 18, and claim 15 is dependent on claim 14 which is unclear.
3. Claims Nos.: 11, 12
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:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
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.:

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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