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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 May 2007 (24.05.2007)

PCT

(10) International Publication Number
WO 2007/059438 A1

(51) International Patent Classification:
A61K 8/25 (2006.01) *A61K 8/81* (2006.01)
A61K 8/27 (2006.01) *A61K 8/99* (2006.01)
A61K 8/73 (2006.01) *A61Q 11/00* (2006.01)

(21) International Application Number:
PCT/US2006/060785

(22) International Filing Date:
10 November 2006 (10.11.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/271,306 10 November 2005 (10.11.2005) US

(71) Applicant *(for all designated States except US)*: **COLGATE-PALMOLIVE COMPANY** [US/US]; 300 PARK AVENUE, New York, NY 10022 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **MIKSA, Davide** [HR/US]; 2 BROOKMEAD ROAD, Newark, DE 19711 (US). **TRIVEDI, Harsh, M.** [US/US]; 134 GRANTHAM DRIVE, Somerset, NJ 08873 (US). **XU, Tao** [US/US]; 41 JERNEE DRIVE, East Brunswick, NJ 08816 (US).

(74) Agent: **BULLOCK, Kristyne, A.**; COLGATE-PALMOLIVE COMPANY, PATENT DEPARTMENT, 909 RIVER ROAD, Piscataway, NJ 08855 (US).

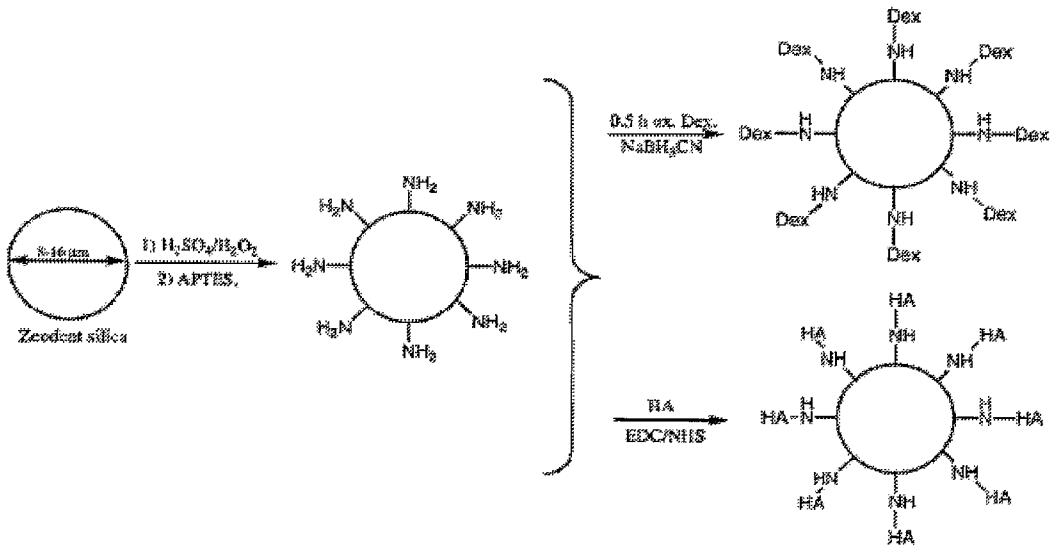
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

[Continued on next page]

(54) **Title:** PARTICLES THAT INHIBIT OR REDUCE BACTERIAL ADHESION ON AN ORAL SURFACE, RELATED COMPOSITIONS AND METHODS



(57) **Abstract:** Oral care comprising particles having cores comprising an oxide or its salt attached to bioadhesive polymers for inhibition of pellicle formation, plaque formation, biofilm formation and microbial adhesion or attachment to an oral surface are described. Methods using said compositions to treat oral surfaces.

WO 2007/059438 A1

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.