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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 December 2010 (09.12.2010)

PCT

(10) International Publication Number
WO 2010/141098 A1

(51) International Patent Classification:
A61K 8/00 (2006.01)

(21) International Application Number:
PCT/US2010/001632

(22) International Filing Date:
3 June 2010 (03.06.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/217,796 3 June 2009 (03.06.2009) US

(71) Applicant *(for all designated States except US)*: **ZERRAN INTERNATIONAL CORPORATION**; 12880 Pierce St., Pacoima, CA 91331 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **SAUTE, Robert** [US/US]; 10236 Mossy Rock Circle, Los Angeles, CA 90077 (US). **SAUTE, Steve** [US/US]; 3934 Robin Hill Road, La Canada Flintridge, CA 91011 (US).

(74) Agent: **LIPKIN, Sandra, Lee**; Sandra Lee Lipkin, A Law Corporation, P.o. Box 3518, Santa Barbara, CA 93006-3518 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, 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, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, 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, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

WO 2010/141098 A1

(54) **Title**: COMPOSTION AND METHOD FOR HAIR STRAIGHTENING AND CURLING

(57) **Abstract**: A composition and method of use therefore that allows for permanent straightening or curling of human hair that is not irritating to the skin, that allows for the immediate shampooing of hair thereafter and that provides for re-treatment of the hair without additional damage. The composition primarily uses dimethyl sulfone (MSM) and high temperatures to break and reform disulfide bonds as a means to allow for the penetration of low molecular weight proteins into the shaft of the hair. When curling the hair, it is understood that devices that will stretch hairs into curls at the temperatures expressed in the scope of the patent will produce a permanent curled hair. A test curl will indicate the heat and temperature required to permanently curl the hair being treated.