



(51) International Patent Classification:

A61K 8/362 (2006.01) *A61Q 5/04* (2006.01)
A61K 8/41 (2006.01) *A61Q 5/08* (2006.01)
A61Q 5/00 (2006.01) *A61Q 5/10* (2006.01)

(21) International Application Number:

PCT/US2014/049388

(22) International Filing Date:

1 August 2014 (01.08.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/861,281	1 August 2013 (01.08.2013)	US
61/867,872	20 August 2013 (20.08.2013)	US
61/885,898	2 October 2013 (02.10.2013)	US
61/903,239	12 November 2013 (12.11.2013)	US
14/257,089	21 April 2014 (21.04.2014)	US
14/257,056	21 April 2014 (21.04.2014)	US
14/257,076	21 April 2014 (21.04.2014)	US
62/000,340	19 May 2014 (19.05.2014)	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, BN, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(71) **Applicant:** LIQWD, INC. [US/US]; 1482 East Valley Road, #701, Santa Barbara, California 93108 (US).

(72) **Inventors:** PRESSLY, Eric D.; 422 Linda Road, Santa Barbara, California 93106 (US). HAWKER, Craig J.; 1420 Greenworth Place, Santa Barbara, California 93108 (US).

(74) **Agents:** MONHEIT, RIVKA D. et al.; Pabst Patent Group LLP, 1545 Peachtree Street, NE, Suite 320, Atlanta, Georgia 30309 (US).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *with amended claims (Art. 19(1))*

(54) **Title:** METHODS FOR FIXING HAIR AND SKIN

(57) **Abstract:** Compositions, kits, and methods for repairing bonds, for example, disulfide bonds, in hair or on the skin are disclosed. The compositions provide improved conditioning benefit for dry hair or moisturize the skin. The compositions also provide a long lasting moisturized feel and smooth feel to the skin or hair, without feeling greasy. The compositions contain one or more compounds that covalently bind at least two thiol groups in the hair or on the skin. Use of the binding compositions prevents reversion of the repaired bonds to their free thiol state, for at least one week or one month, or more, after a single application of the composition. Improved methods of styling hair, for example permanent hair waving, hair curling, hair coloring or highlighting, and hair straightening, are also provided.

