



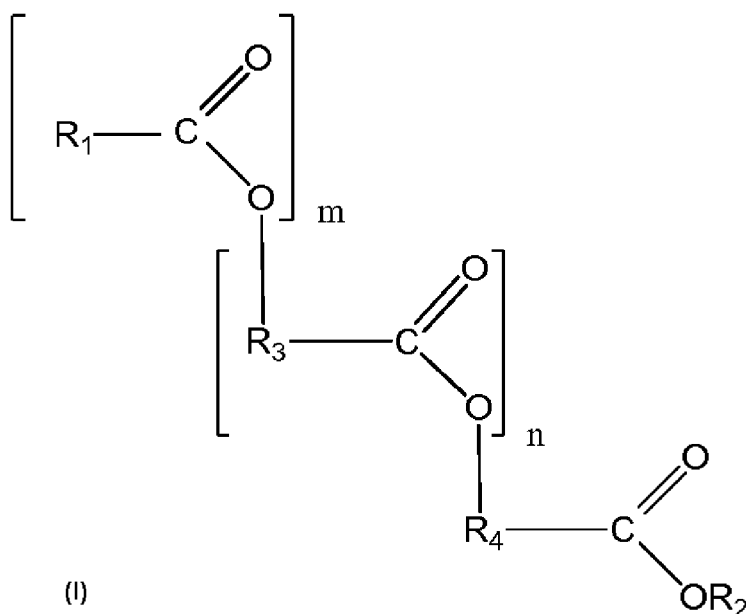
- (51) **International Patent Classification:**
C10M 169/04 (2006.01) *C11C 3/00* (2006.01)
C07C 69/675 (2006.01) *C10N 30/10* (2006.01)
- (21) **International Application Number:**
PCT/US2012/039937
- (22) **International Filing Date:**
30 May 2012 (30.05.2012)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/498,499 17 June 2011 (17.06.2011) US
61/569,046 9 December 2011 (09.12.2011) US
61/643,072 4 May 2012 (04.05.2012) US
- (71) **Applicant (for all designated States except US):** LUBRI-GREEN BIOSYNTHETICS, LLC [US/US]; 17571 Von Karman Avenue, Irvine, California 92614 (US).
- (72) **Inventors; and**
- (73) **Inventors/Applicants (for US only):** BREDSGUARD, Jakob [US/US]; 1024 Oak Glen, Irvine, California 92618 (US). THOMPSON, Travis [US/US]; 6110 East Baja Drive, Anaheim, California 92807 (US). FOREST, Jeremy [US/US]; 345 West 1st Street, Tustin, California 92780 (US).
- (74) **Agent:** FOREST, Jeremy; Lubrigreen Biosynthetics, LLC, 17571 Von Karman Avenue, Irvine, California 92614 (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, QA, RO, RS, RU, RW, 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, 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))

[Continued on next page]

(54) **Title:** ESTOLIDE COMPOSITIONS EXHIBITING HIGH OXIDATIVE STABILITY



(57) **Abstract:** Provided herein are estolide compositions having high oxidative stability, said compositions comprising at least one compound of formula: (I) in which n is an integer equal to or greater than 0; m is an integer equal to or greater than 1; R₁, independently for each occurrence, is selected from optionally substituted alkyl that is saturated or unsaturated, and branched or unbranched; R₂ is selected from hydrogen and optionally substituted alkyl that is saturated or unsaturated, and branched or unbranched; and R₃ and R₄, independently for each occurrence, are selected from optionally substituted alkyl that is saturated or unsaturated, and branched or unbranched. Also provided herein are uses for the compositions and methods of preparing the same.

WO 2012/173774 A1



Published:

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