

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 October 2010 (07.10.2010)

PCT

(10) International Publication Number
WO 2010/114683 A1

(51) International Patent Classification:

C07H 13/04 (2006.01) *C07H 23/00* (2006.01)
C07H 13/08 (2006.01) *C07F 7/22* (2006.01)

(21) International Application Number:

PCT/US2010/026784

(22) International Filing Date:

10 March 2010 (10.03.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/165,162 31 March 2009 (31.03.2009) US

(71) Applicant (for all designated States except US): **TATE & LYLE TECHNOLOGY LTD** [GB/GB]; Sugar Quay, Lower Thames Street, London EC3R 6DQ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HUTTON, Thomas, Kennedy** [GB/US]; 505 Winston Drive, St. Joseph, IL 61873 (US). **SEABERG, Peter, Jay** [US/US]; 1139 Columbia Drive, Decatur, IL 62522 (US). **KERWOOD, Christopher, C.** [US/US]; 3618 Claremont Drive, Lafayette, IN 47905 (US).

(74) Agents: **PRESTIA, Paul, F.** et al.; Ratnerprestia, P.O. Box 980, Valley Forge, PA 19482 (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, 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, 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).

Published:

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

(54) Title: BASE-ASSISTED FORMATION OF TIN-SUCROSE ADDUCTS

(57) Abstract: A method of forming a sucrose-6-ester includes in sequence the steps of: a) contacting sucrose with a organotin-based acylation promoter in a solvent in the presence of a base selected from amines and basic alkali metal salts; b) removing water to form a tin-sucrose adduct; and c) contacting the tin-sucrose adduct with an acylating agent to form the sucrose- 6-ester. The sucrose-6-ester may then be converted to sucralose.



WO 2010/114683 A1