



- (51) **International Patent Classification:**
C07C 51/265 (2006.01)
- (21) **International Application Number:**
PCT/IB2018/051195
- (22) **International Filing Date:**
26 February 2018 (26.02.2018)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
15/445,280 28 February 2017 (28.02.2017) US
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- (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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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,

- (54) Title:** ENERGY AND ENVIRONMENTALLY INTEGRATED METHOD FOR PRODUCTION OF AROMATIC DICARBOXYLIC ACIDS BY OXIDATION

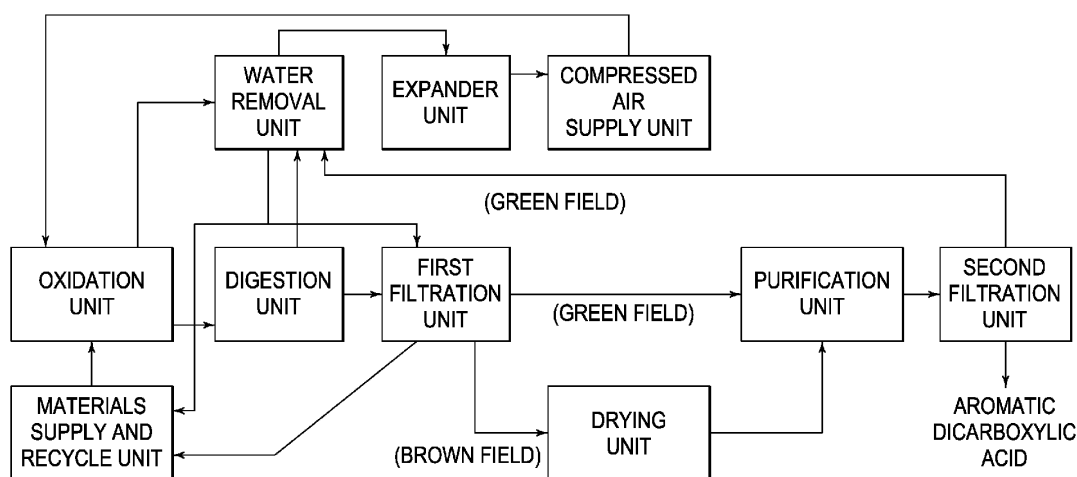


FIG. 1

- (57) Abstract:** A continuous process for oxidizing a di-alkyl substituted aromatic compound with compressed air in a primary bubble column reactor; including removing a portion of the three phase reaction medium to a post-oxidation bubble column unit supplied with compressed air; separating the post oxidation reaction medium to an overhead gas and an underflow slurry; collecting overhead gases from the oxidation reactors and the de-gassing unit and conducting the combined overhead gases to a water removal column (WRC); transferring the underflow slurry from the de-gassing unit to a digestion unit to effect further oxidation without addition of air to the digestion unit; removing overhead gases to the water removal column; crystallizing the final oxidation slurry; and filtering the slurry on a rotary pressure filter; wherein a portion of the energy of the off gas from the WRC is employed to drive an air compressor to supply the compressed air for oxidation.

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, ST, 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).

Published:

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