

(51) International Patent Classification:
B01D 53/00 (2006.01)(21) International Application Number:
PCT/US2012/022689(22) International Filing Date:
26 January 2012 (26.01.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/437,579 28 January 2011 (28.01.2011) US(71) Applicant (for all designated States except US): **EMERY OLEOCHEMICALS LLC** [US/US]; 4900 Este Avenue, Cincinnati, OH 45232 (US).(72) Inventor: **WALKER, Thomas, Chad**; 1513 Shirepeak Way, Independence, KY 41051 (US).(74) Agents: **ARDIZZONE, Timothy, D.** et al.; Wood, Herron & Evans, LLP, 2700 Carew Tower, 441 Vine Street, Cincinnati, OH 45202-2917 (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, 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, LI, 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).

[Continued on next page]

(54) Title: PROCESS FOR RECONDITIONING A GAS FROM THE OZONIZING OF AN UNSATURATED FATTY ACID

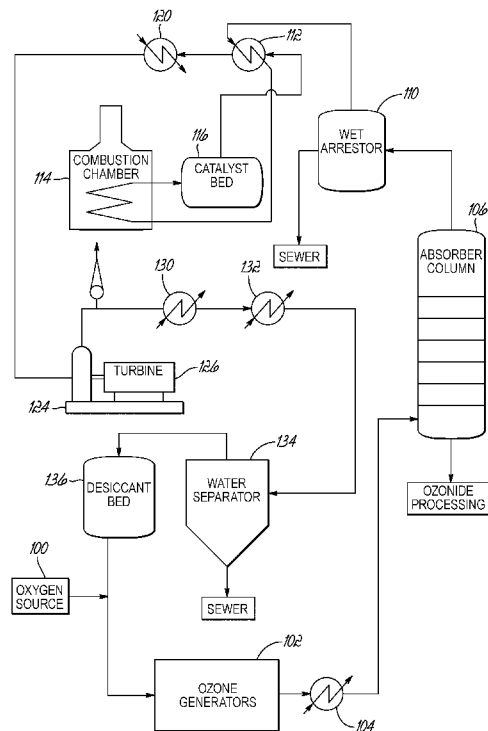


FIG. 2

(57) Abstract: Described herein are processes and systems useful for reconditioning a depleted gas from an absorber column (106) in which an ozonizing reaction is conducted. The process is conducted in a closed system and includes the steps of removing organic compounds from the depleted gas, and compressing and drying the organic-free depleted gas. The process further includes reestablishing the desired ratio of oxygen to substantially non-reactive gas in the gas upstream of an ozone generator (102) by removing a portion of the depleted gas and replacing the removed portion with a quantity of fresh oxygen gas, thereby forming a replenished gas. The replenished gas is then passed through an ozone generator (102) to establish the desired ozone concentration thereby forming an ozone enriched gas. Finally, the ozone enriched gas is reintroduced into the absorber column (106) for use in the ozonizing reaction.



Published:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*