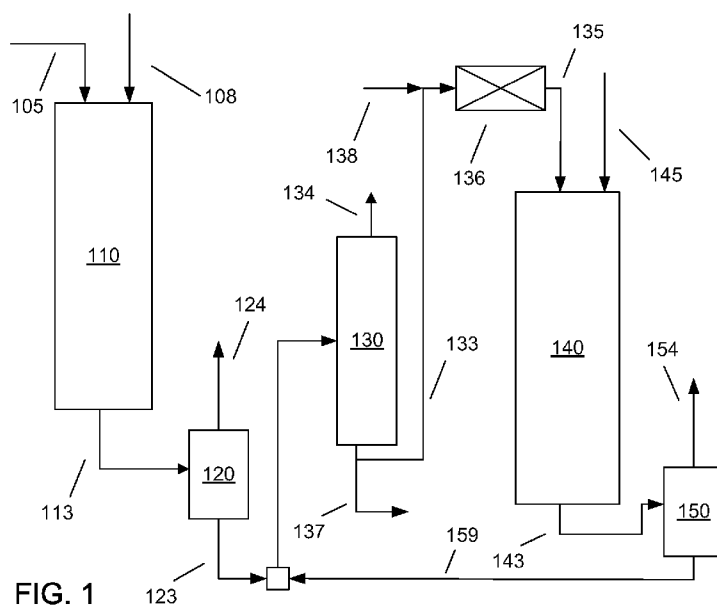


- | | |
|--|---|
| <p>(51) International Patent Classification:
 <i>C10G 45/00</i> (2006.01)</p> <p>(21) International Application Number:
 PCT/US2011/041769</p> <p>(22) International Filing Date:
 24 June 2011 (24.06.2011)</p> <p>(25) Filing Language: English</p> <p>(26) Publication Language: English</p> <p>(30) Priority Data:
 61/359,890 30 June 2010 (30.06.2010) US</p> <p>(71) Applicant <i>(for all designated States except US):</i>
 EXXONMOBIL RESEARCH AND ENGINEERING COMPANY [US/US]; 1545 Route 22 East, P.o. Box 900, Annandale, NJ 08801-0900 (US).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants <i>(for US only):</i> DOUGHERTY, Richard, Charles [US/US]; 48 Wagon Bridge Run, Moorestown, NJ 08057-2859 (US). HAYES, Michael, A. [US/US]; 32 Oak Ridge Road, Washington, NJ 07882 (US). UMANSKY, Benjamin, Santiago [US/US]; 12766 Alder Woods Drive, Fairfax, VA 22033 (US). LEWIS, William, Ernest [US/US]; 6933 North Fieldgate Court, Baton Rouge, LA 70808 (US).</p> | <p>(74) Agents: WEISBERG, David, M. et al.; Exxonmobil Research And Engineering Company, 1545 Route 22 East, P.o. Box 900, Annandale, NJ 08801-0900 (US).</p> <p>(81) Designated States <i>(unless otherwise indicated, for every kind of national protection available):</i> 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.</p> <p>(84) Designated States <i>(unless otherwise indicated, for every kind of regional protection available):</i> ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, 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, 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).</p> |
|--|---|

[Continued on next page]

- (54) Title:** INTEGRATED GAS AND LIQUID PHASE PROCESSING OF BIOCOMPONENT FEEDSTOCKS



- (57) Abstract:** A mineral feed can be hydrotreated in a trickle-bed reactor or other stage in a continuous gas-phase environment. The effluent from the hydrotreatment stage can be separated to remove gas-phase impurities. The remaining liquid effluent from the hydrotreating stage can then be introduced, in total or in part, into a second stage/reactor. A feed of biocomponent origin can also be introduced into the second stage/reactor. The second stage/reactor can be operated to perform deoxygenation of the mixture of biocomponent feed and hydrotreated liquid effluent in a continuous liquid phase environment.



Published:

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