

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/056730 A1

(51) International Patent Classification⁷: **C07C 7/152**

(21) International Application Number:
PCT/US2003/040403

(22) International Filing Date:
18 December 2003 (18.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/325,354 19 December 2002 (19.12.2002) US

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

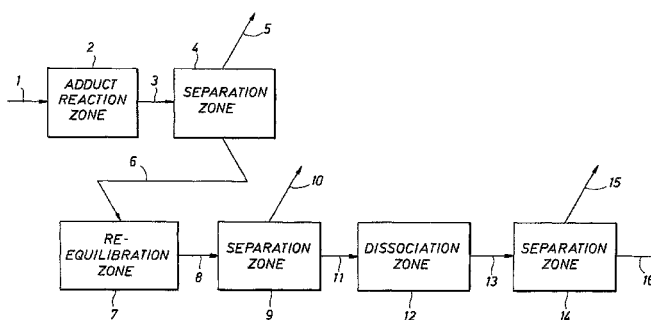
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR SEPARATING LINEAR ALPHA OLEFINS FROM SATURATED HYDROCARBONS



(57) Abstract: A process for separating linear alpha olefins from a feedstock containing linear alpha olefins, saturated hydrocarbons, internal olefins, branched olefins, and alcohols, in particular, from a Fisher-Tropsch stream is provided. The feedstock is contacted with a linear polyaromatic compound under conditions effective to form a reaction mixture comprising linear polyaromatic compound-olefin adducts, saturated hydrocarbons, unreacted olefins, unreacted linear polyaromatic compound, and alcohol; separating the linear polyaromatic compound-olefin adducts thereby providing an adduct stream comprising the adducts; re-equilibrating the adduct stream under conditions effective to increase the percentage of the polyaromatic compound reacted with linear alpha olefins over all other olefins reacted with the polyaromatic compound in the stream thereby producing re-equilibrated stream comprising linear polyaromatic compound-olefin adducts, dissociated olefins, and unreacted and dissociated linear polyaromatic compound; separating the linear polyaromatic compound-olefin adducts from the dissociated olefins in the equilibrated stream; dissociating the thus separated linear polyaromatic compound-olefin adducts to form linear polyaromatic compound and alpha olefin enriched olefin product; and separating the alpha olefin enriched olefin product from the polyaromatic compound, whereby the thus separated product is enriched in the concentration of linear alpha olefins over other olefins in the feedstock.



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