



(51) International Patent Classification:

C07C 4/06 (2006.01) **C07C 15/00** (2006.01)
C07C 7/04 (2006.01)

(21) International Application Number:

PCT/KR2011/006813

(22) International Filing Date:

15 September 2011 (15.09.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2010-0091052

16 September 2010 (16.09.2010)

KR

(71) Applicant (for all designated States except US): **SK INNOVATION CO., LTD.** [KR/KR]; 99, Seorin-dong, Jongro-gu, Seoul 110-110 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Hong Chan** [KR/KR]; 2448-20, Ora 1-dong, Jeju-si, Jeju Special Self-Governing Province 690-161 (KR). **KIM, Yong Seung** [KR/KR]; 107-1502, Seongsu Hyundai I-park, 834, Seongsu-dong 2 ga, Seongdong-gu, Seoul 133-120 (KR). **KIM, Sung Won** [KR/KR]; 103-506, Gangbyeon Samsung Apt., Wonhyoro 4-ga, Yongsan-gu, Seoul 140-768 (KR). **OH, Sang Hun** [KR/KR]; 501-2301, Pangyo One maeul Purugio Apt., 634, Pangyo-dong Bundang-gu, Seongnam-si, Gyeonggi-do 463-410 (KR). **LEE, Hyuck Jae** [KR/KR]; 304-805, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR). **CHOO, Dae Hyun** [KR/KR]; 102-407, Dosi Apt., 220-1(3/2), Dongsam-dong, Yeongdo-gu, Busan 606-080 (KR). **KIM, Cheol**

Joong [KR/KR]; 510-1502, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-762 (KR). **KIM, Gyung Rok** [KR/KR]; 303-1502, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR). **NOH, Myoung Han** [KR/KR]; 102-501, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR). **KOH, Jae Suk** [KR/KR]; 11-404, Science Ville, 257-26, Wonchon-dong, Yuseong-gu, Daejeon 305-370 (KR). **CHOI, Hyun Chul** [KR/KR]; 203-702, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761 (KR). **KIM, Eun Kyoung** [KR/KR]; 107-501, Saemmeori Apt., Dunsan 2-dong, Seo-gu, Daejeon 302-777 (KR). **LEE, Yoon Kyung** [KR/KR]; 1678, Uncheon-dong, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do 361-110 (KR). **LEE, Jong Hyung** [KR/KR]; 117-1503, Jeonwon maeul World 3-cha Apt., Janggi-dong, Gimpo-si, Gyeonggi-do 415-746 (KR). **CHOI, Sun** [KR/KR]; 109-101, Honorsville, Yongsan-dong, Yuseong-gu, Daejeon 305-500 (KR). **OH, Seung Hoon** [KR/KR]; 3-1408, Seongyeong Apt., Daechi-dong, Gangnam-gu, Seoul 135-836 (KR). **KOH, Jae Hyun** [KR/KR]; 103-608, Chowon Apt., Mannyeon-dong, Seo-gu, Daejeon 302-740 (KR). **LEE, Sang Il** [KR/KR]; 209-702, Daewoo Apt., Daedeok Technovalley 2-danji, Gwanpyeong-dong, Yuseong-gu, Daejeon 305-509 (KR). **LEE, Seung Woo** [KR/KR]; 603-209, Gukhwa Apt., Dunsan 3-dong, Seo-gu, Daejeon 302-782 (KR).

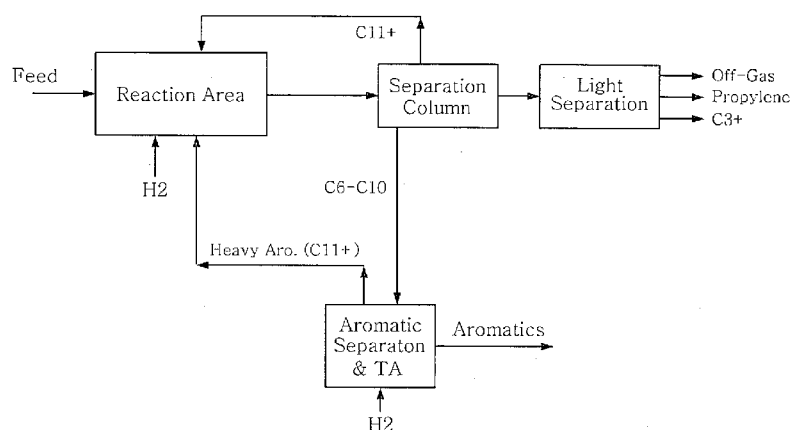
(74) Agent: **LEE & PARK**; 6th F1., Changsang Bldg., 1543-12, Seocho 3-dong, Seocho-gu, Seoul 137-872 (KR).

(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,

[Continued on next page]

(54) Title: METHOD OF PRODUCING VALUABLE AROMATICS AND OLEFINS FROM HYDROCARBONACEOUS OILS DERIVED FROM COAL OR WOOD

fig. 1



(57) Abstract: This invention relates to a method of producing aromatics and olefins from oils derived from coal or wood, including partially saturating and cracking the oils derived from coal or wood in a hydrogenation & reaction area, separating them depending on the number of carbons, recirculating heavy oils having 11 or more carbons to the hydrogenation & reaction area, feeding oils suitable for producing BTX to an aromatic separation process and a transalkylation process to recover aromatics, and feeding hydrocarbonaceous components having 5 or less carbons to a light separation process, thus obtaining olefins.



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, 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, 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).

Published:

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