

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
10 September 2021 (10.09.2021)



(10) International Publication Number
WO 2021/178115 A1

(51) International Patent Classification:

C07C 5/333 (2006.01) C10G 35/06 (2006.01)
C07C 11/06 (2006.01) C10G 35/14 (2006.01)
B01J 23/10 (2006.01)

(21) International Application Number:

PCT/US2021/017314

(22) International Filing Date:

10 February 2021 (10.02.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/986,229	06 March 2020 (06.03.2020)	US
62/993,985	24 March 2020 (24.03.2020)	US
20179409.6	11 June 2020 (11.06.2020)	EP

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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, IT, 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,

(54) Title: PROCESSES FOR UPGRADING ALKANES AND ALKYL AROMATIC HYDROCARBONS

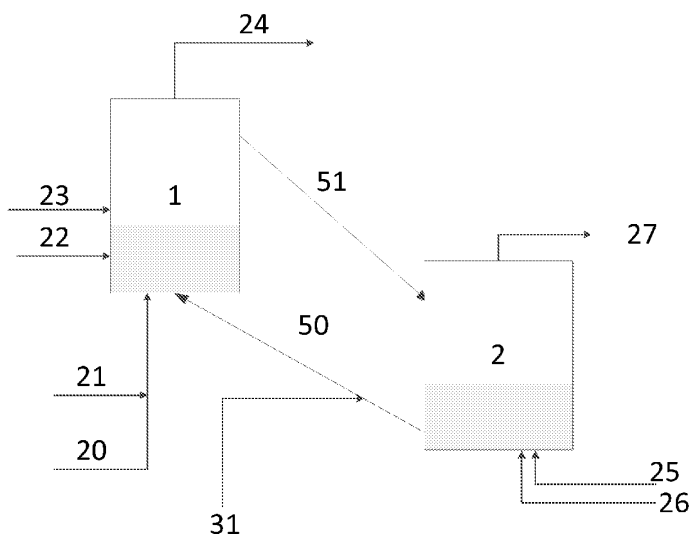


FIG. 1

(57) Abstract: Processes for upgrading a hydrocarbon. The process can include contacting a hydrocarbon-containing feed with fluidized catalyst particles that can include a Group 8-10 element or a compound thereof disposed on a support to effect one or more of dehydrogenation, dehydroaromatization, and dehydrocyclization of at least a portion of the hydrocarbon-containing feed to produce a coked catalyst and an effluent. The process can also include contacting at least a portion of the coked catalyst particles with an oxidant to effect combustion of at least a portion of the coke to produce regenerated catalyst particles. The process can also include contacting an additional quantity of the hydrocarbon-containing feed with at least a portion of the regenerated catalyst particles to produce additional effluent and re-coked catalyst particles.

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SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, 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))