



(51) International Patent Classification:

C07C 7/13 (2006.01) *C10G 25/03* (2006.01)
C10G 25/05 (2006.01)

(21) International Application Number:

PCT/CN2014/088225

(22) International Filing Date:

9 October 2014 (09.10.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant: BASF SE [DE/DE]; 67056 Ludwigshafen (DE).

(71) Applicant (for KN only): BASF (CHINA) COMPANY LIMITED [CN/CN]; 300 Jiangxinsha Road, Pudong District, Shanghai, 200137 (CN).

(72) Inventors: WAGNER, Hans-Guenter; An den Brunnengaerten 5, 67271 Neuleiningen (DE). BAYER, Christoph; Kleinfeldstr.34, 68165 Mannheim (DE). KAR-

RER, Lothar; Hebbelstr.22, 64319 Pfungstadt (DE). RUETTER, Heinz; Carl-Bosch-Str.38, 67056 Ludwigshafen (DE). PIETZ, Patrik; Eschkopfstr.10, 68161 Mannheim (DE). CRONE, Sven; Berwartsteinstr. 15, 67117 Limburgerhof (DE). EGGERSMANN, Markus; Heinrich-Narjes-Strasse 35, 67346 Speyer (DE). WONG, Kam Wing; Flat D. 24/F, Block 3, Belvedere Garden Phase 2, Tsuen Wan, Hong Kong (CN).

(74) Agent: ZHONGZI LAW OFFICE; 7F, New Era Building, 26 Pinganli Xidajie, Xicheng District, Beijing 100034 (CN).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SA, SC,

[Continued on next page]

(54) Title: RECYCLING PROCESS FOR ADSORBER REGENERATION

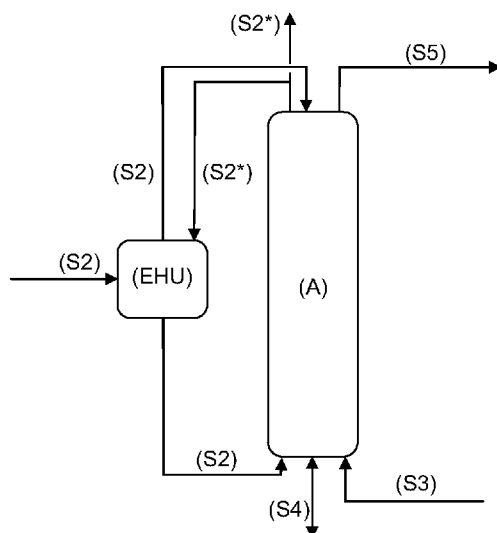


Fig. 1

(57) Abstract: A process for the regeneration of an adsorber is disclosed. For the regeneration a liquid stream (S2) comprising at least one alkane is converted from liquid phase into gaseous phase. Then the adsorber is regenerated and heated by contact with gaseous stream(S2) up to 230 to 270°C. Subsequently, the adsorber is cooled first by contact with gaseous stream(S2) to a temperature of 90 to 150°C followed by cooling with liquid stream(S2) to a temperature below 80°C. The out flow of the adsorber (S2*) during the cooling with gaseous stream(S2) and optionally the outflow of the adsorber (S2*) during cooling with liquid stream(S2) is recycled in at least one of these steps.



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, 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))