

(51) International Patent Classification:
B01D 53/14 (2006.01) *B01D 53/62* (2006.01)(21) International Application Number:
PCT/US2011/050972(22) International Filing Date:
9 September 2011 (09.09.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/381,351	9 September 2010 (09.09.2010)	US
61/381,294	9 September 2010 (09.09.2010)	US
61/381,281	9 September 2010 (09.09.2010)	US
61/421,048	8 December 2010 (08.12.2010)	US
61/420,960	8 December 2010 (08.12.2010)	US
61/420,978	8 December 2010 (08.12.2010)	US

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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, 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,

[Continued on next page]

(54) Title: MIXED AMINE AND NON-NUCLEOPHILIC BASE CO₂ SCRUBBING PROCESS FOR IMPROVED ADSORPTION AT INCREASED TEMPERATURES

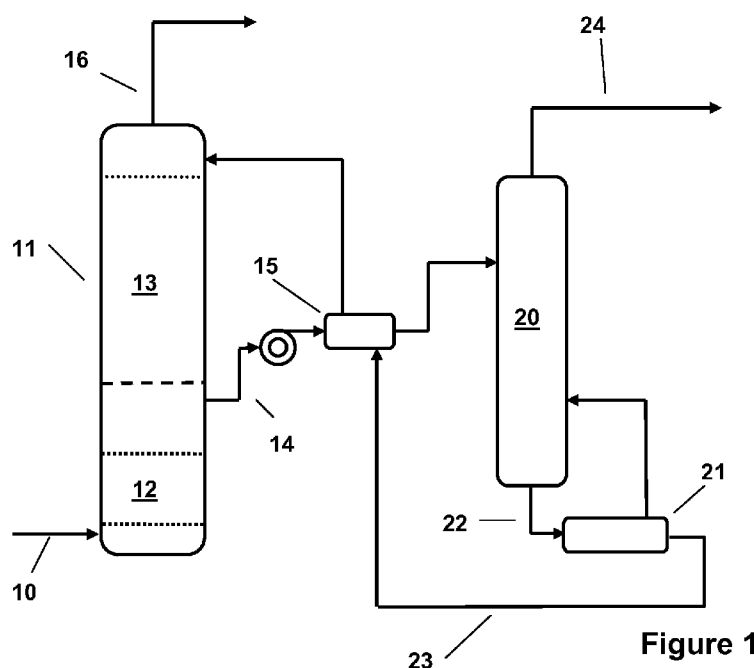


Figure 1

(57) Abstract: A CO₂ amine scrubbing process uses an absorbent mixture combination of an CO₂ sorbent in combination with a non-nucleophilic, relatively stronger, typically nitrogenous, base. The weaker base(s) are nucleophilic and have the ability to react directly with the CO₂ in the gas stream while the relatively stronger bases act as non-nucleophilic promoters for the reaction between the CO₂ and the weaker base. The sorption and desorption temperatures can be varied by selection of the amine/base combination, permitting effective sorption temperatures of 70 to 90°C, favorable to scrubbing flue gas.



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.

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).

(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,

Published:

— *with international search report (Art. 21(3))*