

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 July 2010 (22.07.2010)

PCT

(10) International Publication Number
WO 2010/082995 A3

(51) International Patent Classification:

BOID 53/75 (2006.01) **BOID 53/26** (2006.01)
BOID 53/40 (2006.01) **CIOL 3/10** (2006.01)
BOID 53/14 (2006.01)

(21) International Application Number:

PCT/US2009/067872

(22) International Filing Date:

14 December 2009 (14.12.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/354,949 16 January 2009 (16.01.2009) 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, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

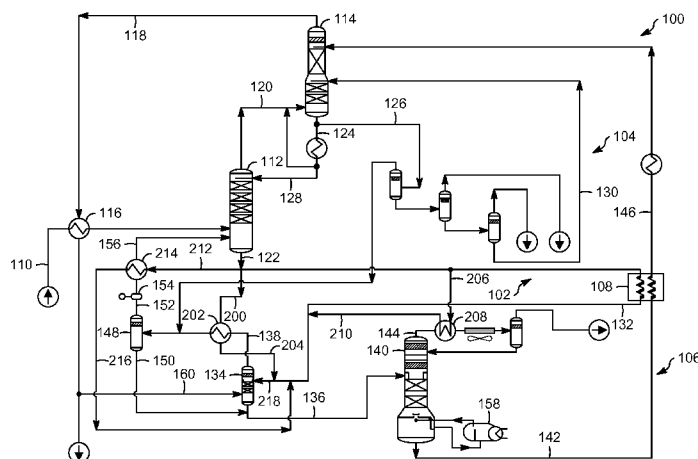
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): **ARIPO** (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: HEAT INTEGRATION FOR HOT SOLVENT STRIPPING LOOP IN AN ACID GAS REMOVAL PROCESS



(57) Abstract: Systems and processes utilize one or more methods of providing overhead waste process heat to increase the feed temperature of the hot solvent stripping regeneration loop in an acid gas removal process. A heated rich solvent stream can be the primary feed for the hot solvent stripping regeneration loop, and one or more slip streams can be heated and then combined with the heated rich solvent stream to form a combined rich solvent stream prior to further processing in downstream units to remove acid gas from the solvent. A first slip stream can be heated in a stripper gas heat exchanger by heat exchange with a stripped gas stream. A second slip stream can be heated in a regenerator exchanger by heat exchange with an acid gas stream. A third slip stream can be heated in a recycle gas exchanger by heat exchange with a compressed recycle gas stream.

WO 2010/082995 A3

(88) Date of publication of the international search report:
16 September 2010

A. CLASSIFICATION OF SUBJECT MATTER

BOID 53/75(2006.01)i, BOID 53/40(2006.01)1, BOID 53/14(2006.01)1, BOID 53/26(2006.01)1, CIOL 3/10(2006.01)1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

BOID 53/75, BOID 19/00, BOID 50/00, BOID 53/14, COIB 17/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords acid, removal, absorber, solvent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 2008/0184887 A1 (MAK JOHN) 07 August 2008 See abstract, figures 2-5, paragraphs [0029] to [0038]	1-10
A	US 2006/0032377 A1 (SATISH REDDY et al.) 16 February 2006 See abstract, figures 1-2, paragraphs [0024] to [0027] and [0032]	1-10
A	US 2005/0172807 A1 (MAK JOHN) 11 August 2005 See abstract, figure 2, paragraphs [0023], [0026] to [0030], claims 12-13	1-10
A	US 5145658 A (CHAO) 08 September 1992 See abstract, figures 1-2, column 4, line 22 to column 5, line 30, column 10, line 32 to column 12, line 3	1-10

Further documents are listed in the continuation of Box C

See patent family annex

* Special categories of cited documents

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"X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

13 JULY 2010 (13 07 2010)

Date of mailing of the international search report

14 JULY 2010 (14.07.2010)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No 82-42-472-7140

Authorized officer

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Telephone No 82-42-481-8296



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/067872

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