## (19) World Intellectual Property Organization

International Bureau



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### (43) International Publication Date 4 December 2008 (04.12.2008)

## PCT

# (10) International Publication Number WO 2008/145680 A3

(51) International Patent Classification: *B01D 53/86* (2006.01) *C01B 17/04* (2006.01)

(21) International Application Number:

PCT/EP2008/056571

(22) International Filing Date: 29 May 2008 (29.05.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

07109266.2 31 May 2007 (31.05.2007) 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, BR, BW, BY, BZ, CA, CH, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, 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, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

 as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

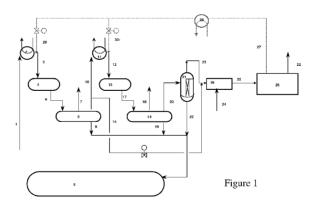
#### **Published:**

with international search report

(88) Date of publication of the international search report:

12 February 2009

(54) Title: PROCESS FOR PRODUCING A PURIFIED GAS



(57) Abstract: A process for producing purified gas from a sour gas comprising  $H_2S$ , the process comprising the steps of : (a) contacting a sour gas comprising  $H_2S$  with an absorbing liquid for  $H_2S$  to transfer  $H_2S$  from the sour gas to the absorbing liquid, thereby producing an  $H_2S$ - rich absorbing liquid and the purified gas; (b) transferring  $H_2S$  from the  $H_2S$ -rich absorbing liquid to a stripping gas, thereby obtaining a feed acid gas stream enriched in  $H_2S$ ; (c) providing the feed acid gas stream enriched in  $H_2S$  and a gas stream comprising  $SO_2$  to a sulphur recovery system comprising two or more Claus catalytic stages in series, each Claus catalytic stage comprising a Claus catalytic reactor coupled to a sulphur condenser, wherein either the feed acid gas stream enriched in  $H_2S$  or the gas stream comprising  $SO_2$  is completely routed to the first Claus catalytic stage while the other stream is split into two or more substreams and each of the two or more substreams are supplied to a different Claus catalytic stage, wherein the amount of feed acid gas stream enriched in  $H_2S$  or the amount of gas stream comprising  $SO_2$  is supplied to the Claus catalytic stages in dependence of the temperature in the Claus catalytic reactors to enable that the temperature in the Claus catalytic reactors is moderated; (d) reacting at least part of the  $H_2S$  in the feed acid gas stream enriched in  $H_2S$  with  $SO_2$  to elemental sulphur in the two or more Claus catalytic reactors.



2008/145680

## INTERNATIONAL SEARCH REPORT

International application No PCT/EP2008/056571

A. CLASSIFICATION OF SUBJECT MATTER INV. B01D53/86 C01B17/04

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

 $\begin{array}{ccc} \text{Minimum documentation searched (classification system followed by classification symbols)} \\ \text{C01B} & \text{B01D} & \text{C10L} \end{array}$ 

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

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

EPO-In	ternal, WPI Data		
C. DOCUMI	ENTS CONSIDERED TO BE RELEVANT		
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Y	claims 34,35 paragraphs [0084], [0085] claims 1,15	)-02-10 <i>)</i>	5
	paragraph [0062] figures 1,4 paragraph [0007] claim 40 paragraph [0051]		
A	DE 32 37 387 A1 (LINDE AG [DE]) 12 April 1984 (1984-04-12) the whole document	-/	5–7
X Furt	her documents are listed in the continuation of Box C.	X See patent family annex.	
"A" docume consid "E" earlier of filing of "L" docume which citation "O" docume other of the citation of the c	ent defining the general state of the art which is not dered to be of particular relevance document but published on or after the international date ent which may throw doubts on priority. claim(s) or is cited to establish the publication date of another n or other special reason (as specified) ent referring to an oral disclosure, use, exhibition or means ent published prior to the international filing date but han the priority date claimed	<ul> <li>"T" later document published after the inte or priority date and not in conflict with cited to understand the principle or th invention</li> <li>"X" document of particular relevance; the cannot be considered novel or canno involve an inventive step when the document of particular relevance; the cannot be considered to involve an in document is combined with one or ments. such combination being obvio in the art.</li> <li>"&amp;" document member of the same patent</li> </ul>	the application but early underlying the claimed invention to considered to bocument is taken alone claimed invention eventive step when the ore other such docuus to a person skilled
	actual completion of the international search September 2008	Date of mailing of the international sea 27/11/2008	arch report
	mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswljk Tel. (+31-70) 340-2040,	Authorized officer	<del> </del>
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## **INTERNATIONAL SEARCH REPORT**

International application No
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