

Title (en)

EXTRACTION MEDIUM USED IN A METHOD FOR CAPTURING CARBON DIOXIDE CONTAINED IN A GASEOUS EFFLUENT

Title (de)

EXTRAKTIONSMEDIUM, DAS BEI EINEM VERFAHREN ZUM ABFANGEN VON IN EINEM GASFÖRMIGEN AUSTRAGSSTROM ENTHALTENEM KOHLENDIOXID VERWENDET WIRD

Title (fr)

MILIEU D'EXTRACTION UTILISE DANS UN PROCEDE DE CAPTURE DE DIOXYDE DE CARBONE CONTENU DANS UN EFFLUENT GAZEUX

Publication

EP 2099551 A2 20090916 (FR)

Application

EP 07870269 A 20071109

Priority

- FR 2007001857 W 20071109
- FR 0610495 A 20061127

Abstract (en)

[origin: FR2909010A1] Medium for extraction of carbon dioxide from a gaseous effluent, comprises a product of acid base reaction between a base (mixture) (I) of amidine or guanidine and a hydroxyl/thiol compound (mixture) (II). Medium for extraction of carbon dioxide from a gaseous effluent, comprises a product of acid base reaction between a base (mixture) (I) of amidine or guanidine compound of formula $R_2R_3N-C(R_4)=NR_1$ and a hydroxyl/thiol compound (mixture) (II) of formula $R(ZH)_n$. R_1 - R_3 , R_5 , R_6 alicyclic, heterocyclic, (mono or poly)aromatic hydrocarbon (all optionally substituted), aliphatic hydrocarbon or H; R_4 alicyclic, heterocyclic, (mono or poly)aromatic hydrocarbon (all optionally substituted), aliphatic hydrocarbon, H or -NR₅R₆; R : mono or multivalent aliphatic, alicyclic or optionally substituted heterocyclic or (mono or poly)aromatic; Z : O and/or S; and n : 1-20, preferably 1-6. An independent claim is included for capturing carbon dioxide, comprising contacting gas effluent to be treated containing carbon dioxide with the extraction medium, to impoverish the effluent gas of carbon dioxide and to enrich the extraction medium in carbon dioxide and a regenerating the extraction medium and generating carbon dioxide rich gas.

IPC 8 full level

B01D 53/14 (2006.01); **B01D 53/62** (2006.01); **B01J 20/22** (2006.01)

CPC (source: EP)

B01D 53/1475 (2013.01); **B01D 53/1493** (2013.01); **Y02A 50/20** (2017.12); **Y02C 20/40** (2020.08)

Citation (search report)

See references of WO 2008068411A2

Citation (examination)

PHILIP G. JESSOP ET AL: "Green chemistry: Reversible nonpolar-to-polar solvent", NATURE, vol. 436, no. 7054, 25 August 2005 (2005-08-25), pages 1102 - 1102, XP055024047, ISSN: 0028-0836, DOI: 10.1038/4361102a

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2909010 A1 20080530; **FR 2909010 B1 20090220**; EP 2099551 A2 20090916; WO 2008068411 A2 20080612; WO 2008068411 A3 20080731

DOCDB simple family (application)

FR 0610495 A 20061127; EP 07870269 A 20071109; FR 2007001857 W 20071109