

Title (en)  
METHOD FOR DEPLETING HYDROGEN SULFIDE IN NATURAL GAS FROM THE EXPLOITATION OF CRUDE OIL/NATURAL GAS MIXTURES

Title (de)  
VERFAHREN ZUR ABREICHERUNG VON SCHWEFELWASSERSTOFF IN ERDGAS AUS DER FÖRDERUNG VON ERDÖL-ERDGAS-  
GEMISCHEN

Title (fr)  
PROCEDE POUR APPAUVRIR LE GAZ NATUREL ISSU DE L'EXTRACTION DE MELANGES PETROLE/GAZ NATUREL, EN HYDROGENE  
SULFURE

Publication  
**EP 1888720 A2 20080220 (DE)**

Application  
**EP 06753820 A 20060524**

Priority  
• EP 2006004917 W 20060524  
• DE 102005025958 A 20050603

Abstract (en)  
[origin: WO2006128619A2] The invention relates to a method for depleting hydrogen sulfide in natural gas from the exploitation of crude oil/natural gas mixtures containing acid gas, during which the pressure of highly pressurized crude oil/natural gas mixture is firstly reduced to a pressure of 70 to 130 bar, preferably 90 bar, the outgassing crude gas is separated from the crude oil and the crude gas is cooled, whereby the liquid phase condensing during the cooling of the crude gas is removed, the outgassed crude gas is, after cooling and without further measures of reducing pressure, subjected to a gas scrubbing, which absorbs a large portion of the H<SUB>2</SUB>S contained in the crude gas by means of a physically acting solvent whereby cleaning the crude gas. The loaded solvent is led into at least one pressure reducing stage, and the heat dissipated during the cooling of the crude gas is fed to the loaded solvent. The dissolved H<SUB>2</SUB>S is permitted to outgas from the solvent that, in turn, cools regenerated solvents and returns them to the gas scrubbing. The crude oil with the pressure reduced to 70 to 130 bar is subjected to a further reduction in pressure in another stage to a pressure of 20 to 40 bar, preferably 30 bar, and the outgassing additional H<SUB>2</SUB>S-rich crude gas is separated from the crude oil. The crude oil with the pressure reduced to 20 to 40 bar is subjected to a further reduction in pressure to a pressure of 2 to 15 bar, preferably 10 bar. The outgassing additional crude gas is separated from the crude oil, and the H<SUB>2</SUB>S-containing gas outgassed from the solvent is brought to the pressure of the H<SUB>2</SUB>S-rich crude gas outgassed from the crude oil, and all outgassed H<SUB>2</SUB>S-containing flows of gas are brought together. This merged H<SUB>2</SUB>S-containing flow of gas is brought to a pressure greater than the pressure of the crude oil reservoir and guided into a bored hole of the crude oil reservoir.

IPC 8 full level  
**C10L 3/10** (2006.01); **B01D 53/14** (2006.01); **E21B 43/40** (2006.01)

CPC (source: EP US)  
**B01D 53/1468** (2013.01 - EP US); **B01D 53/1493** (2013.01 - EP US); **C10L 3/10** (2013.01 - EP US); **C10L 3/102** (2013.01 - EP US); **E21B 43/40** (2013.01 - EP US)

Citation (search report)  
See references of WO 2006128619A2

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 NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**DE 102005025958 A1 20061207**; CA 2609769 A1 20061207; CA 2609769 C 20130702; EP 1888720 A2 20080220; NO 20080013 L 20080102; US 2010011957 A1 20100121; US 8361201 B2 20130129; WO 2006128619 A2 20061207; WO 2006128619 A3 20070322

DOCDB simple family (application)  
**DE 102005025958 A 20050603**; CA 2609769 A 20060524; EP 06753820 A 20060524; EP 2006004917 W 20060524; NO 20080013 A 20080102; US 92119706 A 20060524