

Title (en)

METHOD FOR DENITROGENATION OF NATURAL GAS WITH OR WITHOUT HELIUM RECOVERY

Title (de)

VERFAHREN ZUR STICKSTOFFENTFERNUNG AUS ERDGAS MIT ODER OHNE HELIUMGEWINNUNG

Title (fr)

PROCEDE DE DEAZOTATION DU GAZ NATUREL AVEC OU SANS RECUPERATION D'HELIUM

Publication

EP 3058296 B1 20180328 (FR)

Application

EP 14799510 A 20141014

Priority

- FR 1360138 A 20131018
- FR 2014052606 W 20141014

Abstract (en)

[origin: WO2015055938A2] The invention relates to a method for denitrogenation of natural gas by distillation, in which natural gas (11, 12) cooled in an exchange line (1) is separated in a system of columns including at least one column (2,3), a nitrogen-enriched gas (18) is drawn from one column (3) of the system of columns and is heated in the exchange line, a methane-enriched liquid (13) is drawn from one column (3) of the system of columns, pressurised and vaporised in the exchange line at at least one vaporisation pressure, and at least one portion of the cooled natural gas expands in gaseous form in a turbine (7) and is sent to one column (2) of the system of columns in gaseous form.

IPC 8 full level

F25J 3/02 (2006.01)

CPC (source: EA EP MX US)

F25J 3/02 (2013.01 - EA MX); **F25J 3/0209** (2013.01 - EA EP MX US); **F25J 3/0233** (2013.01 - EA EP US); **F25J 3/0257** (2013.01 - EA EP US);
F25J 2200/06 (2013.01 - EA EP US); **F25J 2230/08** (2013.01 - EA EP US); **F25J 2230/60** (2013.01 - EA EP US);
F25J 2235/60 (2013.01 - EA EP US); **F25J 2240/02** (2013.01 - EA EP US); **F25J 2240/40** (2013.01 - EA EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2015055938 A2 20150423; WO 2015055938 A3 20151203; EA 034668 B1 20200304; EA 201690799 A1 20160831;
EP 3058296 A2 20160824; EP 3058296 B1 20180328; FR 3012211 A1 20150424; FR 3012211 B1 20181102; HR P20180610 T1 20180629;
MX 2016004800 A 20160718; PL 3058296 T3 20180928; SA 516370968 B1 20201020; US 10006699 B2 20180626;
US 2016245584 A1 20160825

DOCDB simple family (application)

FR 2014052606 W 20141014; EA 201690799 A 20141014; EP 14799510 A 20141014; FR 1360138 A 20131018; HR P20180610 T 20180417;
MX 2016004800 A 20141014; PL 14799510 T 20141014; SA 516370968 A 20160417; US 201415029107 A 20141014