

Title (en)

INTEGRATED RECOVERY OF HYDROCARBONS FROM A SUBSURFACE RESERVOIR WITH NITROGEN INJECTION

Title (de)

INTEGRIERTE WIEDERGEWINNUNG VON KOHLENWASSERSTOFFEN AUS EINEM UNTERIRDISCHEN RESERVOIR MIT STICKSTOFFEINSPRITZUNG

Title (fr)

RÉCUPÉRATION INTÉGRÉE D'HYDROCARBURES À PARTIR D'UN RÉSERVOIR SOUTERRAIN À L'AIDE D'INJECTION D'AZOTE

Publication

EP 2931830 A1 20151021 (EN)

Application

EP 13803080 A 20131213

Priority

- EP 12196893 A 20121213
- EP 2013076626 W 20131213
- EP 13803080 A 20131213

Abstract (en)

[origin: WO2014091024A1] The invention concerns a method for the recovery of hydrocarbons from a natural gas subsurface reservoir, wherein a nitrogen stream (i) containing less than 10 ppm oxygen is injected into the natural gas reservoir, whereby the nitrogen stream (i) is prepared in and captured from a CLC reactor wherein a fuel is combusted through use of an oxygen carrier with a gas stream (ii) containing both oxygen and nitrogen, and wherein part of the hydrocarbons recovered from the natural gas reservoir are used as fuel in the CLC reactor. The invention further concerns an integrated production system with nitrogen injection for recovering hydrocarbons from a natural gas subsurface reservoir suitable for the above method.

IPC 8 full level

C09K 8/594 (2006.01); **C01B 3/36** (2006.01); **E21B 43/16** (2006.01); **F23C 10/01** (2006.01); **F25J 3/04** (2006.01)

CPC (source: EP)

C01B 3/36 (2013.01); **C09K 8/594** (2013.01); **E21B 43/168** (2013.01); **F23C 10/005** (2013.01); **C01B 2203/0255** (2013.01); **F23C 2900/99008** (2013.01); **Y02E 20/34** (2013.01)

Citation (search report)

See references of WO 2014091024A1

Citation (examination)

US 4393936 A 19830719 - JOSENDAL VIRGIL A

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2014091024 A1 20140619; EP 2931830 A1 20151021

DOCDB simple family (application)

EP 2013076626 W 20131213; EP 13803080 A 20131213