

Title (en)

METHOD FOR ENHANCED UPGRADING OF HEAVY OIL BY ADDING A HYDROTREATING STEP TO AN UPGRADING PROCESS

Title (de)

VERFAHREN ZUR VERBESSERTEN VEREDELUNG VON SCHWERÖL DURCH HINZUFÜGEN EINES HYDROTREATING-SCHRITTES ZU EINEM VEREDELUNGSVERFAHREN

Title (fr)

PROCÉDÉ POUR UNE MEILLEURE VALORISATION D'HUILE LOURDE PAR L'AJOUT D'UNE ÉTAPE D'HYDRORAFFINAGE À UN PROCESSUS DE VALORISATION

Publication

EP 3074487 A1 20161005 (EN)

Application

EP 14809243 A 20141121

Priority

- US 201361908345 P 20131125
- US 2014066809 W 20141121

Abstract (en)

[origin: WO2015077558A1] The invention relates to methods for enhancing the upgrading of heavy oils. In essence, a hydrotreating step is added to an upgrading process, so that process severity can be increased, product yields and quality improve, and hydrogen can be produced and serve as a source for the entire process.

IPC 8 full level

C10G 65/12 (2006.01)

CPC (source: EP KR US)

C10G 65/12 (2013.01 - EP KR US); **C10G 69/04** (2013.01 - KR US); **C10G 69/06** (2013.01 - KR US); **C10G 2300/70** (2013.01 - EP KR US); **C10G 2300/703** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2015077558A1

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 2015077558 A1 20150528; CN 106029840 A 20161012; EP 3074487 A1 20161005; JP 2017500435 A 20170105; KR 102339837 B1 20211215; KR 20160103991 A 20160902; SA 516371201 B1 20210623; US 2015144527 A1 20150528

DOCDB simple family (application)

US 2014066809 W 20141121; CN 201480064030 A 20141121; EP 14809243 A 20141121; JP 2016554816 A 20141121; KR 20167016663 A 20141121; SA 516371201 A 20160525; US 201414550080 A 20141121