

Title (en)

PROCESS FOR REDUCING THE VISCOSITY OF CRUDE OILS

Title (de)

VERFAHREN ZUR VERRINGERUNG DER VISKOSITÄT VON ROHÖLEN

Title (fr)

PROCÉDÉ DE RÉDUCTION DE LA VISCOSITÉ DES PÉTROLES BRUTS

Publication

**EP 2513256 B1 20140319 (EN)**

Application

**EP 10784720 A 20101130**

Priority

- IT MI20092183 A 20091214
- EP 2010007284 W 20101130

Abstract (en)

[origin: WO2011072804A1] Process for the reduction of the viscosity of crude oils substantially comprising a separation step of said crude oils (in order to separate a light fraction and a heavy fraction having a residual water content not higher than 1,400 ppm) and a treatment step of said heavy fraction by means of microwave irradiation (in continuous or pulsed mode), operating at temperatures ranging from 50 to 350 °C, for a time period of between 1 second and 120 minutes and with frequencies ranging from 0.3 to 300 GHz.

IPC 8 full level

**C10G 15/08** (2006.01); **B01J 19/12** (2006.01); **C10G 32/02** (2006.01)

CPC (source: EP)

**C10G 15/08** (2013.01); **C10G 32/02** (2013.01); **C10G 2300/1033** (2013.01); **C10G 2300/302** (2013.01)

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 2011072804 A1 20110623; WO 2011072804 A8 20110929;** CY 1115207 T1 20170104; EP 2513256 A1 20121024;  
EP 2513256 B1 20140319; ES 2473540 T3 20140707; HR P20140574 T1 20140801; IT MI20092183 A1 20110615; PL 2513256 T3 20140930;  
PT 2513256 E 20140625; SI 2513256 T1 20140829

DOCDB simple family (application)

**EP 2010007284 W 20101130;** CY 141100444 T 20140618; EP 10784720 A 20101130; ES 10784720 T 20101130; HR P20140574 T 20140617;  
IT MI20092183 A 20091214; PL 10784720 T 20101130; PT 10784720 T 20101130; SI 201030650 T 20101130