

Title (en)

PROCESSES FOR IMPROVED PERFORMANCE OF DOWNSTREAM OIL CONVERSION

Title (de)

VERFAHREN ZUR VERBESSERTEN LEISTUNG DER ABWÄRTSSTROM-ÖLUMWANDLUNG

Title (fr)

PROCÉDÉS PERMETTANT D'AMÉLIORER LES PERFORMANCES D'UNE CONVERSION D'HUILE EN AVAL

Publication

**EP 4153705 A1 20230329 (EN)**

Application

**EP 21732701 A 20210519**

Priority

- US 202063027052 P 20200519
- US 2021033244 W 20210519

Abstract (en)

[origin: WO2021236827A1] The present technology provides processes for improving the performance of downstream oil conversion. Thus it provides, among others, processes for improving the yield of liquid hydrocarbons from a thermal conversion process. The processes include contacting a hydrocarbon feedstock with an effective amount of sodium metal and an effective amount of exogenous capping agent at a temperature of 250-500 °C, to produce a mixture of sodium salts and a converted feedstock. The hydrocarbon feedstock may comprise hydrocarbons with a sulfur content of at least 0.5 wt%, an asphaltene content of at least 1 wt% and micro carbon residue content of at least 5 wt%. The converted feedstock may comprise hydrocarbons with a sulfur content less than that in the hydrocarbon feedstock, a micro carbon residue content less than that in the hydrocarbon feedstock and an asphaltene content less than that in the hydrocarbon feedstock. The process further comprises subjecting the converted feedstock to a thermal conversion process to produce a gaseous product, a purified product and a residual product, wherein the proportion of purified product to residual product is greater than that produced by subjecting the hydrocarbon feedstock in the same thermal conversion process.

IPC 8 full level

**C10G 29/04** (2006.01); **C10B 55/00** (2006.01); **C10B 57/08** (2006.01); **C10G 55/04** (2006.01)

CPC (source: EP KR US)

**C10B 55/00** (2013.01 - EP); **C10B 57/045** (2013.01 - EP); **C10B 57/08** (2013.01 - EP); **C10G 29/04** (2013.01 - EP KR); **C10G 55/04** (2013.01 - EP KR); **C10G 55/06** (2013.01 - US); **C10G 67/02** (2013.01 - EP KR); **C10G 69/06** (2013.01 - EP KR); **C25C 3/02** (2013.01 - KR); **C25C 7/005** (2013.01 - KR); **C10G 2300/202** (2013.01 - KR US); **C10G 2300/206** (2013.01 - KR US); **C10G 2300/302** (2013.01 - KR US); **C10G 2300/308** (2013.01 - KR US)

Citation (search report)

See references of WO 2021236827A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2021236827 A1 20211125**; CA 3183922 A1 20211125; CN 115803416 A 20230314; EP 4153705 A1 20230329; JP 2023527780 A 20230630; KR 20230012007 A 20230125; MX 2022014654 A 20230222; US 2024018424 A1 20240118

DOCDB simple family (application)

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