

Title (en)

UPGRADING LIGHT NAPHTAS FOR INCREASED OLEFINS PRODUCTION

Title (de)

VEREDELUNG VON LEICHTEN NAPHTHAS ZUR ERHÖHTEN PRODUKTION VON OLEFINEN

Title (fr)

VALORISATION DE NAPHTAS LÉGERS POUR UNE PRODUCTION D'OLÉFINES AUGMENTÉE

Publication

EP 2421936 A2 20120229 (EN)

Application

EP 10714027 A 20100422

Priority

- EP 2010055370 W 20100422
- EP 09158607 A 20090423
- EP 10714027 A 20100422

Abstract (en)

[origin: EP2243814A1] The present invention is a process to upgrade light naphthas comprising branched paraffins and their use as a feedstock in a steam cracking unit, said light naphthas consisting essentially of 90 to 100% by weight of hydrocarbons having at least 5 and up to 8 carbon atoms, said process comprising, a) providing an isomerization zone recovered from the gasoline unit of an oil refinery, b) providing a separation zone capable to treat an hydrocarbon stream comprising branched paraffins and normal paraffins to produce a first hydrocarbon stream having a reduced branched paraffins content and an enhanced normal paraffins content and a second hydrocarbon stream having an enhanced branched paraffins content and a reduced normal paraffins content, c) sending the light naphtha to the isomerization zone and operating said zone at conditions effective to produce a light naphtha having a reduced branched paraffins content and an enhanced normal paraffins content, d) sending the withdrawn light naphtha from step c) to the separation zone to recover a first and a second hydrocarbon streams, e) sending the first hydrocarbon stream recovered from step d) to the steam cracking unit, f) recycling at least a part of the second hydrocarbon stream recovered from step d) at the inlet of the isomerization zone, or c) sending the light naphtha to the separation zone to recover a first and a second hydrocarbon streams, d) sending the second hydrocarbon stream recovered from step c) to the isomerization zone and operating said zone at conditions effective to produce a light naphtha having a reduced branched paraffins content and an enhanced normal paraffins content, e) mixing the outlet stream of step d) with the first hydrocarbon stream recovered from step c) and sending said mixed stream to the steam cracking unit, or c) sending the light naphtha to the separation zone to recover a first and a second hydrocarbon streams, d) sending the first hydrocarbon stream recovered from step c) to the steam cracking unit, e) sending at least a part of the second hydrocarbon stream recovered from step d) to the isomerization zone and operating said zone at conditions effective to produce a light naphtha having a reduced branched paraffins content and an enhanced normal paraffins content, f) recycling the outlet stream from step e) to the inlet of the separation zone.

IPC 8 full level

C10G 9/00 (2006.01); **C10G 45/58** (2006.01); **C10G 45/62** (2006.01); **C10G 45/64** (2006.01); **C10G 69/06** (2006.01); **C10G 69/14** (2006.01)

CPC (source: EP US)

C10G 9/00 (2013.01 - EP US); **C10G 45/58** (2013.01 - EP US); **C10G 45/62** (2013.01 - EP US); **C10G 45/64** (2013.01 - EP US);
C10G 69/06 (2013.01 - EP US); **C10G 69/14** (2013.01 - EP US); **C10G 2300/1044** (2013.01 - EP US); **C10G 2300/4081** (2013.01 - EP US);
C10G 2300/807 (2013.01 - EP US); **C10G 2400/20** (2013.01 - EP US)

Citation (search report)

See references of WO 2010122115A2

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

EP 2243814 A1 20101027; EP 2421936 A2 20120229; US 2012074039 A1 20120329; WO 2010122115 A2 20101028;
WO 2010122115 A3 20110217

DOCDB simple family (application)

EP 09158607 A 20090423; EP 10714027 A 20100422; EP 2010055370 W 20100422; US 201013262925 A 20100422