

Title (en)

PROCESS FOR CRACKING A HEAVY HYDROCARBON FEEDSTOCK INTO LOWER BOILING HYDROCARBONS, AND APPARATUS FOR CARRYING OUT THIS PROCESS

Publication

EP 0370910 B1 19920715 (FR)

Application

EP 89403235 A 19891122

Priority

FR 8815363 A 19881124

Abstract (en)

[origin: EP0370910A1] The present invention relates to a process for cracking heavy hydrocarbons into lighter hydrocarbons, and to a device for carrying out this process. <??>This process consists in using a bed of particles, advantageously catalytic particles, in a reaction chamber, introducing a gas for the fluidisation of the bed in accordance with a predetermined flow rate so as to create a spurting fluidised bed and introducing a plasma jet, preferably containing argon, into the chamber, the jet being directed towards a defined zone of the bed so as to create a reaction space having at least two reaction zones at different temperatures, the zone at the higher temperature being that into which the plasma jet is directed, introducing the heavy hydrocarbons into the reaction zone at lower temperature and preferably introducing into the zone at higher temperature one or more light alkanes so as to bring about the cracking of the heavy hydrocarbons in the fluidised bed, the latter effecting a quenching of the reaction mixture and catalysing the cracking. The process furthermore consists in discharging the products obtained downstream from the zone at lower temperature. <??>The invention is particularly applicable in the chemical and energy-generating industries.

IPC 1-7

C10G 15/12; **C10G 47/30**

IPC 8 full level

C10G 15/12 (2006.01); **C10G 47/30** (2006.01)

CPC (source: EP US)

C10G 15/12 (2013.01 - EP US); **C10G 47/30** (2013.01 - EP US)

Cited by

US8192591B2; US8911617B2

Designated contracting state (EPC)

AT BE CH DE ES GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0370910 A1 19900530; **EP 0370910 B1 19920715**; AT E78287 T1 19920815; AU 4552189 A 19900628; AU 627244 B2 19920820; CA 2003619 A1 19900524; DE 68902132 D1 19920820; DE 68902132 T2 19930304; ES 2034717 T3 19930401; FR 2639354 A1 19900525; FR 2639354 B1 19930122; GR 3005786 T3 19930607; NO 894672 D0 19891123; NO 894672 L 19900525; NZ 231496 A 19920326; US 5026949 A 19910625

DOCDB simple family (application)

EP 89403235 A 19891122; AT 89403235 T 19891122; AU 4552189 A 19891123; CA 2003619 A 19891122; DE 68902132 T 19891122; ES 89403235 T 19891122; FR 8815363 A 19881124; GR 920402108 T 19920924; NO 894672 A 19891123; NZ 23149689 A 19891123; US 44030089 A 19891122