

Title (en)
STEAM CRACKING PROCESS IN A FLUIDISED-BED REACTION ZONE

Publication
EP 0291408 B1 19900912 (FR)

Application
EP 88401145 A 19880510

Priority
FR 8706627 A 19870511

Abstract (en)
1. A process for the steam cracking, in a fluid bed reaction zone, of a hydrocarbon charge containing at least two carbon atoms per molecule, comprising a step of heating said charge in a first part of said reaction zone by contact with first hot solid particles, said heating step giving a first gas effluent, and further comprising a step of cooling said effluent by contact with second cooling particles in a second part of said reaction zone, characterized in that said first part of the reaction zone comprises at least one enclosure having a central axis and an internal periphery, in that a mixture of said charge, at least partly vaporized, is circulated with steam at the internal periphery of said enclosure, wherein said mixture is contacted with said first solid particles heated to a temperature T1 from 500 to 1800 degrees C, said mixture and said solid particles circulating co-currently as a whole, downwardly or upwardly, in that, after stirring of at least the solid particles with said mixture, said particles are separated in said enclosure from at least a portion of said first gas effluent resulting from said stirring, at least a part of said effluent is fed to the second part of said reaction zone opening into said enclosure substantially along its central axis, said effluent is contacted with said second cooling solid particles which are circulated through said second part of the reaction zone and whose temperature T2 is at most 800 degrees C, said temperature T2 being lower than temperature T1, said second particles are separated from a second steam-cracking effluent resulting from the contact of said first effluent with said second solid particles, and the steam-cracking effluent is recovered.

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C10G 9/00; C10G 9/32; C10G 51/02; C10G 51/04

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CPC (source: EP US)
C10G 9/002 (2013.01 - EP US); **C10G 9/32** (2013.01 - EP US); **C10G 51/023** (2013.01 - EP US); **C10G 51/04** (2013.01 - EP US)

Cited by
FR2647804A1; US5139650A; US6352638B2; WO0127224A1; WO9015118A1; WO9103527A1

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