

Title (en)

Fluid catalytic cracking process for hydrocarbon feed, particularly a high basic nitrogen content feed.

Title (de)

Fluidkatalytisch Krachverfahren für Kohlenwasserstoffeinsätze, insbesondere Einsätze mit hoher basischen Stickstoffgehalten.

Title (fr)

Procédé de craquage catalytique en lit fluidisé d'une charge d'hydrocarbures, notamment d'une charge à forte teneur en composés azotés basiques.

Publication

EP 0663434 A1 19950719 (FR)

Application

EP 94403062 A 19941230

Priority

FR 9400472 A 19940118

Abstract (en)

A fluid catalytic cracking (FCC) process for the cracking of a hydrocarbon charge, partic. one contg. a high basic N content in a tubular reaction zone comprises: - a supply of catalyst particles (at least in part regenerated) to the upper part of the reaction zone; - introduction and dispersion of the charge to be treated in the upper part of the reactor (beneath the entry pt. of the catalyst); - co-current circulation in mutual contact in the reaction zone of the catalyst and charge to be treated; - sepn. at the lower part of the reaction zone, of the deactivated catalyst from the reaction prods.; - stripping of the deactivated catalyst; - regeneration of at least part of the stripped catalyst in a regeneration zone; - recycling of the regenerated catalyst to the upper reaction zone, and - transfer of the cracked prods. to a sepn. zone. The process has the following characteristics: the catalyst circulates from top to bottom co-currently with the charge in the tubular zone; a catalyst is used which in equilibrium state (150 degrees C and 5 mbars) adsorbs less than 250 mu moles (pref. < 50 mu moles)/g of pyridine and retains after heating at 350 degrees C in a vacuum, no more than 20% (pref. 10%) of the amt. absorbed.

Abstract (fr)

Dans ce procédé la charge et le catalyseur circulent de haut en bas et à co-courant dans la zone tubulaire et l'on utilise un catalyseur qui, à l'état d'équilibre , à 150 °C, sous une pression de 5 mbars, adsorbe une quantité de pyridine inférieure à 250 micromoles/g et, de préférence, inférieure à 50 micromoles/g, et dont la rétention de pyridine, après chauffage à 350°C sous vide, n'excède pas 20 %, et de préférence 10 %, de la quantité adsorbée à 150°C. <IMAGE>

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C10G 11/05; C10G 11/18

IPC 8 full level

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CPC (source: EP US)

C10G 11/05 (2013.01 - EP US); **C10G 11/18** (2013.01 - EP US)

Citation (search report)

- [A] US 4411773 A 19831025 - GROSS BENJAMIN [US]
- [A] US 4693808 A 19870915 - DEWITZ THOMAS S [US]
- [A] US 3835029 A 19740910 - LARSON L
- [A] EP 0435539 A1 19910703 - CHEVRON RES & TECH [US]
- [A] DATABASE WPI Week 9128, Derwent World Patents Index; AN 204749

Cited by

FR2753454A1; FR2753453A1; US5997726A; EP3575384A1; WO9812280A1; WO9812279A1

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