

Title (en)
SINGLE-STAGE HYDROTREATING PROCESS

Publication
EP 0203228 B1 19890510 (EN)

Application
EP 85201248 A 19850729

Priority
US 73562085 A 19850521

Abstract (en)
[origin: EP0203228A1] A process for catalytically hydrotreating hydrocarbon oils having a tendency to deactivate hydrotreating catalysts by coke formation, in the presence of hydrogen at elevated temperature and pressure which comprises passing: a) oils having a final boiling point greater than 538 DEG C and containing less than 2%w of heptane asphaltenes, b) oils having a final boiling point from 343 DEG C-538 DEG C, or c) mixtures thereof, downwardly with a hydrogen-containing gas into a hydrotreating zone over a stacked-bed of hydrotreating catalysts under conditions suitable to convert more than 25% of the sulphur compounds present to H₂S; wherein said stacked-bed comprises an upper zone containing 15-85%v, basis total catalyst, of a hydrotreating catalyst comprising a component from Group VIB, a Group VIII metal, metal oxide or metal sulphide and a phosphorus compound and a lower a zone containing 15-85%v, basis total catalyst, of a hydrotreating catalyst comprising a component from Group VIB, a Group VIII metal, metal oxide or metal sulphide, and less than 0.5%w phosphorus and separating the reacting product from said hydrotreating zone into a hydrogen-rich gas and a liquid hydrocarbon oil having reduced sulphur and/or heavy metal content.

IPC 1-7
C10G 65/04

IPC 8 full level
C10G 45/08 (2006.01); **B01J 27/00** (2006.01); **B01J 27/188** (2006.01); **C10G 65/04** (2006.01)

CPC (source: EP)
C10G 65/04 (2013.01)

Cited by
US5868921A; US5227353A; EP0870817A1; US7288182B1; EP0483923A1; WO9805739A1; WO2005033930A3; US6531054B1; US7513989B1; US7229548B2; US7232515B1

Designated contracting state (EPC)
BE DE FR GB IT NL SE

DOCDB simple family (publication)
EP 0203228 A1 19861203; EP 0203228 B1 19890510; EP 0203228 B2 19961023; BR 8503786 A 19861209; CA 1272153 A 19900731; CN 1006230 B 19891227; CN 85106942 A 19870204; DE 3570088 D1 19890615; ES 546041 A0 19860116; ES 8604292 A1 19860116; JP H0633364 B2 19940502; JP S61266490 A 19861126; PT 80934 A 19850901; PT 80934 B 19870930; ZA 855849 B 19860326

DOCDB simple family (application)
EP 85201248 A 19850729; BR 8503786 A 19850809; CA 488159 A 19850806; CN 85106942 A 19850809; DE 3570088 T 19850729; ES 546041 A 19850809; JP 17443985 A 19850809; PT 8093485 A 19850809; ZA 855849 A 19850802