

Title (en)
Upgrading of heavy hydrocarbons.

Title (de)
Aufarbeitung von schweren Kohlenwasserstoffen.

Title (fr)
Amélioration des hydrocarbures lourds.

Publication
EP 0103053 A1 19840321 (EN)

Application
EP 82304498 A 19820826

Priority
EP 82304498 A 19820826

Abstract (en)
Heavy hydrocarbonaceous materials are converted to distillate products and pitch in a hydrogen donor diluent cracking process, and the pitch is utilized as feed to a delayed coker. Green coke is calcined in a vertical shaft kiln, and steam is injected into the bottom of the kiln to produce hydrogen by reaction of steam with coke. The hydrogen is drawn from the kiln and used to hydrogenate recycle donor solvent for the cracking step. High sulfur coke can be desulfurized in the kiln, and distillate products in addition to donor solvent can be hydrotreated using hydrogen from the kiln.

IPC 1-7
C10G 45/00; **C10G 47/00**; **C10G 47/22**

IPC 8 full level
C10G 45/00 (2006.01); **C10G 47/34** (2006.01); **C10G 69/06** (2006.01)

CPC (source: EP)
C10G 45/00 (2013.01); **C10G 47/34** (2013.01); **C10G 69/06** (2013.01)

Citation (search report)
• [Y] US 4115246 A 19780919 - SWEANY GLENN A
• [X] US 2772209 A 19561127 - JOSEPH STEWART, et al
• [A] GB 2057493 A 19810401 - MOBIL OIL CORP
• [A] GB 2020309 A 19791114 - EXXON RESEARCH ENGINEERING CO
• [YD] EP 0005643 A2 19791128 - CONOCO INC [US]
• [AD] US 3676517 A 19720711 - MERRILL LA VAUN S JR, et al

Designated contracting state (EPC)
DE FR GB NL

DOCDB simple family (publication)
EP 0103053 A1 19840321

DOCDB simple family (application)
EP 82304498 A 19820826