

Title (en)

Control of polynuclear aromatic by-products in a hydrocracking process.

Title (de)

Kontrolle der aromatischen polynuklearen Nebenprodukte in einem Hydrocrackverfahren.

Title (fr)

Contrôle des sous-produits aromatiques polynucléaires dans un procédé d'hydrocraquage.

Publication

**EP 0309621 A1 19890405 (EN)**

Application

**EP 87308545 A 19870928**

Priority

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Abstract (en)

The detrimental effects of polynuclear aromatic (PNA) by-products are controlled in a catalytic hydrocracking process by (a) introducing a reduced crude into a vacuum fractionation zone to produce a vacuum gas oil stream having a tendency to form detrimental PNA compounds in a hydrocracking zone, a slop wax side stream, and a vacuum bottoms; (b) contacting the vacuum gas oil stream in a hydrocracking zone with added hydrogen and a metal-promoted hydrocracking catalyst at elevated temperature and pressure sufficient to gain a substantial conversion to lower boiling products and to form trace quantities of PNA; (c) partially condensing the hydrocarbon effluent from the hydrocracking zone and separating the same into a low boiling hydrocarbon product stream and a stream containing unconverted hydrocarbons boiling above 650 DEG F (343 DEG C) and trace quantities of PNA compounds; and (d) introducing at least a portion of the stream containing the unconverted hydrocarbons and PNA compounds into the vacuum fractionation zone, thereby recovering a substantial portion of the polynuclear aromatic compounds in the slop wax side stream which significantly minimizes the introduction of the detrimental PNA compounds into the hydrocracking zone.

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CPC (source: EP)

**C10G 47/00** (2013.01); **C10G 67/049** (2013.01)

Citation (search report)

- [AD] US 4447315 A 19840508 - LAMB PAUL R [US], et al
- [A] FR 1411301 A 19650917 - GULF RESEARCH DEVELOPMENT CO

Cited by

CN1043051C; EP0697455A3; FR2906814A1; ES2552736R1; WO2006066857A1; EP0816473B1

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