Title (en)

Desulfurisation process of a hydrocarbon fraction using a simulated moving bed

Title (de)

Verfahren zur Entschwefelung einer Kohlenwasserstofffraktion mit einem simuliertem Wanderbett

Title (fr)

Procédé de désulfuration d'une coupe hydrocarbonée en lit mobile simulé

Publication

EP 1666568 A1 20060607 (FR)

Application

EP 05292374 A 20051108

Priority

FR 0412415 A 20041123

Abstract (en)

The desulfurization of a hydrocarbon feed with a boiling range of 150-450[deg]C and a sulfur content of up to 3% comprises adsorbing sulfur compounds from the feed in an adsorption column that acts as a simulated moving bed, distilling the raffinate to produce a desulfurized gas oil stream and a desorbent recycle stream for the adsorption column, and distilling the extract to produce a sulfur-containing impurity stream and a desorbent recycle stream for the adsorption column. The desulfurization of a hydrocarbon feed with a boiling range of 150-450[deg]C and a sulfur content of up to 3% comprises adsorbing sulfur compounds from the feed (1) in an adsorption column (2) that acts as a simulated moving bed and comprises several adsorbent beds with different selectivities for sulfurized and unsulfurized hydrocarbons and comprises a first zone between a inlet for desorbent (9b) and an outlet for extract (4), a second zone between the extract outlet and feed inlet, a third zone between the feed inlet and an outlet for raffinate (3) and a fourth zone between the raffinate outlet and the desorbent inlet, distilling the raffinate in a distillation column (5) to produce a desulfurized gas oil stream (8) and a desorbent recycle stream (9) for the adsorption column, and distilling the extract in a distillation column (6) to produce a sulfur-containing impurity stream (10) and a desorbent recycle stream (11) for the adsorption column.

IPC 8 full level

C10G 25/08 (2006.01)

CPC (source: EP KR US)

C10G 25/08 (2013.01 - EP US); **C10G 65/02** (2013.01 - KR)

Citation (applicant)

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- [X] US 2985589 A 19610523 - BROUGHTON DONALD B, et al
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DOCDB simple family (publication)

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EP 05292374 A 20051108; CN 200510131566 A 20051123; FR 0412415 A 20041123; JP 2005338111 A 20051124; KR 20050111294 A 20051121; US 28440605 A 20051122