

Title (en)

COAL HYDROGENATION PROCESS BY LIQUID PHASE AND FIXED-BED CATALYST HYDROGENATION

Publication

**EP 0209665 B1 19881012 (DE)**

Application

**EP 86106751 A 19860516**

Priority

DE 3519830 A 19850603

Abstract (en)

[origin: US4741822A] Procedure for hydrogenation of coal by means of liquid phase and fixed-bed catalyst hydrogenation whereby the head products of the high-temperature separator are led directly, and together with the entire high-pressure circuit gas, over a reactor with a rigidly installed catalyst; are separated from the exhaust products of this reactor by partial condensation of the cycle oil required for producing the coal paste and withdrawn from an intermediate separator; and are led again, together with the entire high-pressure circuit gas, over an additional reactor with a fixed-bed catalyst.

IPC 1-7

**C10G 1/06**

IPC 8 full level

**C10G 1/00** (2006.01); **C10G 1/06** (2006.01); **C10G 1/08** (2006.01)

CPC (source: EP US)

**C10G 1/002** (2013.01 - EP US)

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DOCDB simple family (publication)

**DE 3519830 A1 19861218; DE 3519830 C2 19930722;** AU 581990 B2 19890309; AU 8658089 A 19871203; DE 3660919 D1 19881117; EP 0209665 A1 19870128; EP 0209665 B1 19881012; JP H0784597 B2 19950913; JP S62285983 A 19871211; SU 1468427 A3 19890323; US 4741822 A 19880503; ZA 864365 B 19861209

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**DE 3519830 A 19850603;** AU 5808986 A 19860530; AU 5808986 D 19860530; DE 3660919 T 19860516; EP 86106751 A 19860516; JP 12475286 A 19860531; SU 4027591 A 19860602; US 89036986 A 19860729; ZA 864365 A 19860611