

Title (en)

Process for the preparation of hydrocarbon fuels

Title (de)

Verfahren zur Herstellung von Kohlenwasserstoffbrennstoffen

Title (fr)

Procédé de préparation de combustibles hydrocarbonés

Publication

EP 0583836 B2 20020213 (EN)

Application

EP 93202395 A 19930816

Priority

- EP 93202395 A 19930816
- EP 92202537 A 19920818

Abstract (en)

[origin: EP0583836A1] A process for the preparation of hydrocarbon fuels comprises the steps of: a) contacting a mixture of carbon monoxide and hydrogen with a hydrocarbon synthesis catalyst at elevated temperature and pressure to prepare a substantially paraffinic hydrocarbon product; b) contacting the hydrocarbon product so-obtained with hydrogen in the presence of a hydroconversion catalyst under conditions such that substantially no isomerisation or hydrocracking of the hydrocarbon product occurs; and c) contacting at least part of the hydrocarbon product of step (b) with hydrogen in the presence of a hydroconversion catalyst under conditions such that hydrocracking and isomerisation of the hydrocarbon feed occurs to yield a substantially paraffinic hydrocarbon fuel.

IPC 1-7

C10G 65/12; **C10G 65/04**; **C07C 1/04**

IPC 8 full level

B01J 23/75 (2006.01); **B01J 23/74** (2006.01); **C07B 61/00** (2006.01); **C07C 1/04** (2006.01); **C07C 4/06** (2006.01); **C07C 9/15** (2006.01); **C10G 2/00** (2006.01); **C10G 65/04** (2006.01); **C10G 65/12** (2006.01); **C10G 69/00** (2006.01); **C10G 69/02** (2006.01); **C10L 1/00** (2006.01)

IPC 8 main group level

C07C (2006.01); **C10G** (2006.01)

CPC (source: EP)

C10G 2/30 (2013.01); **C10G 65/12** (2013.01)

Citation (opposition)

Opponent :

- EP 0515270 A1 19921125 - INST FRANCAIS DU PETROLE [FR]
- EP 0635557 A1 19950125 - EXXON RESEARCH ENGINEERING CO [US]
- GB 2077289 A 19811216 - SHELL INT RESEARCH
- EP 0147873 A1 19850710 - SHELL INT RESEARCH [NL]
- EP 0127220 A2 19841205 - SHELL INT RESEARCH [NL]
- EP 0321303 A2 19890621 - EXXON RESEARCH ENGINEERING CO [US]
- US 4943672 A 19900724 - HAMNER GLEN P [US], et al
- "Engineering Aspects of the Conversion of Natural Gas into Middle Distillates" M.M.G. Sonden et al., NATOASI I, Ser. 275., 227-247 (1992)
- "Shell Middle Distillate Synthesis Process", M.M., J.van der Burgt et al., 5th Synfuels Worldwide Symposium (1985)

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EP 0583836 A1 19940223; **EP 0583836 B1 19971029**; **EP 0583836 B2 20020213**; AU 4467693 A 19940224; AU 666960 B2 19960229; CA 2104158 A1 19940219; CA 2104158 C 20051115; DE 69314879 D1 19971204; DE 69314879 T2 19980312; DE 69314879 T3 20020718; DK 0583836 T3 19980302; DK 0583836 T4 20020311; DZ 1708 A1 20020217; ES 2110051 T3 19980201; ES 2110051 T5 20021001;

JP 3522797 B2 20040426; JP H06158058 A 19940607; MY 108862 A 19961130; NO 305288 B1 19990503; NO 932905 D0 19930816; NO 932905 L 19940221; NZ 248415 A 19950328; RU 2101324 C1 19980110; ZA 935964 B 19940315

DOCDB simple family (application)

EP 93202395 A 19930816; AU 4467693 A 19930816; CA 2104158 A 19930816; DE 69314879 T 19930816; DK 93202395 T 19930816; DZ 930092 A 19930816; ES 93202395 T 19930816; JP 22232893 A 19930816; MY PI19931620 A 19930816; NO 932905 A 19930816; NZ 24841593 A 19930816; RU 93049258 A 19930816; ZA 935964 A 19930816