

Title (en)

DEVICE AND METHOD FOR HYBRID PRODUCTION OF SYNTHETIC DIHYDROGEN AND/OR SYNTHETIC METHANE

Title (de)

VORRICHTUNG UND VERFAHREN ZUR HYBRIDHERSTELLUNG VON SYNTHETISCHEM DIHYDROGEN UND/ODER SYNTHETISCHEM METHAN

Title (fr)

DISPOSITIF ET PROCÉDÉ DE PRODUCTION HYBRIDE DE DIHYDROGÈNE DE SYNTHÈSE ET/OU DE MÉTHANE DE SYNTHÈSE

Publication

EP 4182421 A1 20230524 (FR)

Application

EP 21749522 A 20210713

Priority

- FR 2020051265 W 20200714
- FR 2008307 A 20200805
- FR 2104177 A 20210421
- EP 2021069502 W 20210713

Abstract (en)

[origin: CA3185723A1] The device (100) for hybrid production of synthetic dihydrogen and/or synthetic methane comprises: - an inlet (105) for a synthesis gas stream preferably comprising at least CO and H₂, - a catalytic conversion reactor (110), the following alternative configurations: - a first configuration in which the operating conditions of the reactor promote a Sabatier reaction, so as to produce an outlet gas comprising mainly methane, or - a second configuration in which the operating conditions of the reactor promote a reaction of the gas with water, so as to produce an outlet gas comprising mainly dihydrogen; - an outlet (115) for synthetic dihydrogen and/or synthetic methane and - a control system (120) comprising a means (121) for selecting a configuration for operating the reactor and a control means (122) according to the selected configuration, the reactor being configured to operate according to a command.

IPC 8 full level

C10L 3/08 (2006.01); **C01B 3/00** (2006.01); **C07C 1/04** (2006.01)

CPC (source: EP US)

B01J 8/1809 (2013.01 - US); **B01J 8/24** (2013.01 - US); **C01B 3/16** (2013.01 - EP US); **C07C 1/041** (2013.01 - EP US); **C10K 3/04** (2013.01 - EP); **C10L 3/08** (2013.01 - EP); **C01B 2203/0405** (2013.01 - EP US); **C01B 2203/0415** (2013.01 - EP US); **C01B 2203/043** (2013.01 - EP US); **C01B 2203/046** (2013.01 - EP US); **C01B 2203/0475** (2013.01 - EP US); **C01B 2203/062** (2013.01 - EP US); **C01B 2203/16** (2013.01 - EP US); **C07C 2521/04** (2013.01 - EP US); **C07C 2523/755** (2013.01 - EP US); **C10L 2290/06** (2013.01 - EP); **C10L 2290/10** (2013.01 - EP); **C10L 2290/46** (2013.01 - EP); **Y02E 50/30** (2013.01 - EP); **Y02E 60/36** (2013.01 - EP)

C-Set (source: EP)

C07C 1/041 + C07C 9/04

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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DOCDB simple family (application)

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