Title (en)

METHOD AND DEVICE FOR PRODUCING A GAS RICH IN HYDROGEN BY THERMAL PYROLYSIS OF HYDROCARBONS

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG EINES WASSERSTOFFREICHEN GASES DURCH THERMISCHE PYROLYSE VON KOHLENWASSERSTOFFEN

Title (fr)

PROCEDE ET DISPOSITIF DE PRODUCTION D'UN GAZ RICHE EN HYDROGENE PAR PYROLYSE THERMIQUE D'HYDROCARBURES

Publication

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Application

EP 02787145 A 20020709

Priority

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Abstract (en)

[origin: WO03008328A1] The invention concerns a method for producing a gas rich in hydrogen by thermal pyrolysis of hydrocarbons which consists in carrying out, in a reactor (R) a catalyst-free thermal cracking to pyrolyze a fuel selected so as to produce either a gas rich in hydrogen and free of carbon monoxide, or a gas rich in hydrogen and containing carbon monoxide and in using said gas effluents during pyrolysis and inert with respect to the cell as fuel at the burner (B) to heat the reactor so as to bring it to a reaction temperature, and which consists, subsequently, in burning the powder carbon produced in the reactor (R) during the pyrolysis reaction either to produce carbon monoxide or to produce carbon dioxide. The invention is useful in particular for supplying hydrogen to fuel cells and for producing synthesis gas.

IPC 1-7

C01B 3/24; C01B 3/22; C01B 3/50; C01B 31/02; B01J 19/00; B01J 19/24

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Citation (search report)

See references of WO 03008328A1

Cited by

US8021448B2; US8075869B2; US8092778B2

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