

Title (en)
COMBUSTION OF GASEOUS FUEL

Title (de)
VERBRENNUNG VON GASFÖRMIGEN BRENNSTOFFEN

Title (fr)
COMBUSTION DE COMBUSTIBLE GAZEUX

Publication
EP 1649215 A1 20060426 (EN)

Application
EP 04743026 A 20040621

Priority
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• GB 0315180 A 20030628
• GB 0320513 A 20030902

Abstract (en)
[origin: WO2005003632A1] A fuel gas is passed into one set of channels in a compact reactor (12) consisting of a plurality of metal sheets (41) arranged to define first and second gas flow channels (14 and 15), the channels being arranged alternately to ensure good thermal contact between the gases in them and each channel containing a removable metallic heat conducting insert (44) coated with a ceramic. In the set of channels carrying the fuel the ceramic supports particles of a transition metal oxide, which is reduced by the combustion gas to form metal particles. In the other set of channels the ceramic supports particles of a transition metal, and these channels carry a flow of an oxidizing gas, which oxidises the metal. The flows to the two sets of channels are then exchanged. If the oxidizing gas is steam, the result is a stream of pure hydrogen.

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IPC 8 full level
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Citation (search report)
See references of WO 2005003632A1

Citation (examination)
US 5827496 A 19981027 - LYON RICHARD K [US]

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