Title (en)
PROCESS FOR CONVERTING HYDROGEN INTO SUBSTITUTE NATURAL GAS

Title (de)
VERFAHREN ZUR UMWANDLUNG VON WASSERSTOFF ZU SYNTHETISCHEM ERDGAS

Title (fr)
PROCEDE DE TRANSFORMATION D'HYDROGENE EN UN GAZ NATUREL DE SUBSTITUTION

Publication
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Application
**EP 99949470 A 19991012**

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Abstract (en)
[origin: WO0021911A1] The present invention relates to a process for producing methane-rich product gas (SNG, Synthetic Natural Gas). Biomass and/or fossil fuels, together with hydrogen from an external source, are fed to a hydrogasification reactor. The reaction products from the hydrogasification reactor are converted, in a methanation reactor, into SNG having a Wobbe index of between 40 and 45 MJ/m$^{<3>}$ (s.t.p.), preferably between 42 and 45 MJ/m$^{<3>}$ (s.t.p.), and having a methane molar percentage of at least 75 %, preferably of at least 80 %. The SNG formed can be delivered without any problems to consumers via the existing gas grid and can be used in existing facilities. The process according to the invention can be managed with a compact methanation reactor having a small number of components. In the long term, when the hydrogen from electrolytical processes via sustainable sources will become important, the process according to the invention forms a suitable approach to upgrading biomass and organic waste, using hydrogen, to form SNG. In the short term, however, hydrogen can be obtained from fossil sources.

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