

Title (en)

METHOD AND SYSTEM FOR PRODUCING INTEGRATED HYDROGEN FROM ORGANIC MATTER

Title (de)

VERFAHREN UND SYSTEM ZUR HERSTELLUNG VON INTEGRIERTEM WASSERSTOFF AUS ORGANISCHEM MATERIAL

Title (fr)

PROCEDE ET SYSTEME DE PRODUCTION D'HYDROGENE INTEGRE A PARTIR DE MATIERE ORGANIQUE.

Publication

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Application

EP 09707866 A 20090121

Priority

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- FR 0850385 A 20080122

Abstract (en)

[origin: WO2009098418A2] The method according to the invention includes, in a first reactor (20), the pyrolysis of a load of moist organic matter (OM). The pyrolysis produces both carbon elements and a pyrolysis gas flow including water vapor and volatile organic compounds (VOC). The VOC present in the pyrolysis gas flow are then subjected to oxycombustion and/or oxidation. The oxidized pyrolysis gas flow then passes through said layer (302) and produces a synthetic gas flow (FS) including hydrogen (H₂) obtained by reducing water vapor (H₂Og) by said carbon elements (C) at a high temperature. The temperature of the synthetic gas flow (FS) is then decreased to create a water-shift reaction where part of the residual water vapor (H₂Og) is reduced by elements of carbon monoxide (CO) to produce hydrogen (H₂). The resulting hydrogen (H₂) is then separated.

IPC 8 full level

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Citation (search report)

See references of WO 2009098418A2

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