

Title (en)

PROCESS AND SYSTEM FOR PROVIDING PURIFIED HYDROGEN GAS

Title (de)

VERFAHREN UND ANLAGE ZUM BEREITSTELLEN VON GEREINIGTEM WASSERSTOFFGAS

Title (fr)

PROCÉDÉ ET SYSTÈME DE FOURNITURE DE GAZ HYDROGÈNE PURIFIÉ

Publication

EP 4301692 A1 20240110 (DE)

Application

EP 22710999 A 20220303

Priority

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- EP 2022055333 W 20220303

Abstract (en)

[origin: WO2022184803A1] A system for providing purified hydrogen gas comprises a dehydrogenation unit (2) for releasing hydrogen gas (H₂) and a dehydrogenation mixture containing at least one impurity from an at least partly loaded hydrogen carrier medium (LOHC+), a separation/purification unit (6) which is fluidically connected to the dehydrogenation unit (2) and serves for separation of the hydrogen gas from the dehydrogenation mixture, a flushing-gas supply (12) which is fluidically connected to the separation/purification unit (6) and serves for thermal utilization of a residue gas mixture containing the flushing gas and at least one impurity, and a heat transfer unit (10) for transferring heat that has been generated in the thermal utilization unit (9) to the dehydrogenation unit (2).

IPC 8 full level

C01B 3/00 (2006.01); **B01D 53/04** (2006.01); **B01D 53/047** (2006.01); **C01B 3/50** (2006.01); **C01B 3/56** (2006.01)

CPC (source: EP US)

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Designated contracting state (EPC)

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