

Title (en)
HYDROGEN PRODUCTION BY WATER DISSOCIATION IN THE PRESENCE OF SNO USING THE SNO₂/SNO COUPLE IN A SERIES OF THERMOCHEMICAL REACTIONS

Title (de)
WASSERSTOFFHERSTELLUNG DURCH WASSERDISSOZIATION UNTER PRÄSENZ VON SNO MITHILFE DES PAARS SNO₂/SNO IN EINER REIHE THERMOCHEMISCHER REAKTIONEN

Title (fr)
PRODUCTION D'HYDROGENE PAR DISSOCIATION DE L'EAU EN PRESENCE DE SNO EN UTILISANT LE COUPLE SNO₂/SNO DANS UNE SUITE DE REACTIONS THERMOCHEMISTIQUES

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Application
EP 08762140 A 20080221

Priority
• FR 2008050295 W 20080221
• FR 0753533 A 20070227

Abstract (en)
[origin: FR2913010A1] Preparing hydrogen comprises hydrolysis of solid SnO (tin (II) oxide) to produce hydrogen, where the produced hydrogen is stored, recovered and/or evaluated, and the implemented solid SnO is obtained by heat reducing of tin oxide (SnO₂) into SnO in the conditions leading to SnO gas and cooling the produced SnO gas at a temperature of = 550[deg] C. Independent claims are included for: (1) a device adapted in the implementation of step of the process comprising hydrolysis reactor (3) fitted with a first inlet (5) adapted in introducing of solid SnO in the hydrolysis reactor as obtained from reducing and cooling steps, an a second inlet (7) connected to water supply unit, and an outlet for evacuating produced hydrogen, and units for recovering and/or evaluating of formed hydrogen in the outlet of the hydrolysis reactor; (2) a fuel cells comprising the device as hydrogen generator; and (3) an installation for the implementation of the process comprising the device (1) associated with a reactor for reducing SnO₂ into SnO equipped with a unit for supply related to an inlet for introducing SnO₂ and an outlet adapted for evacuating SnO gas, and unit for cooling of gas stream comprising SnO gas connected to the outlet of the reduction reactor, suitable for a conversion of SnO gas into SnO solid, a units for supplying SnO solid obtained from cooling unit (28) connected to the first inlet of the hydrolysis reactor.

IPC 8 full level
C01B 3/06 (2006.01); **C01G 19/02** (2006.01); **C02F 1/14** (2006.01)

CPC (source: EP US)
C01B 3/063 (2013.01 - EP US); **F24S 20/20** (2018.04 - EP US); **Y02E 10/40** (2013.01 - EP US); **Y02E 60/36** (2013.01 - EP US)

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