

Title (en)

SYSTEM BASED ON INDUCTION ENERGY FOR LIQUID HYDROGEN EVAPORATING AND HEATING INTO GAS HYDROGEN

Title (de)

SYSTEM BASIEREND AUF INDUKTIONSENERGIE ZUR VERDAMPFUNG UND ERWÄRMUNG VON FLÜSSIGEM WASSERSTOFF IN GASFÖRMIGEN WASSERSTOFF

Title (fr)

SYSTÈME BASÉ SUR L'ÉNERGIE D'INDUCTION POUR L'ÉVAPORATION ET LE CHAUFFAGE DE L'HYDROGÈNE LIQUIDE EN HYDROGÈNE GAZEUX

Publication

EP 4275775 A1 20231115 (EN)

Application

EP 22382462 A 20220512

Priority

EP 22382462 A 20220512

Abstract (en)

System based on induction energy for liquid hydrogen evaporating and heating into gas hydrogen, comprising a module (1) with an inlet (2) for liquid hydrogen and an outlet (3) for gas hydrogen, the inlet (2) and the outlet (3) being joined by a hydrogen pipe (4) that crosses the module (1), in which the induction energy is provided by an induction power supply unit (5), that additionally comprises a heat station (6) that provides heat to the hydrogen pipe (4) through a heat exchanger (7) and provides energy to the induction power supply unit (5), the liquid hydrogen being the cooling fluid for the heat station (6), such that the induction power supply unit (5) provides induction energy to the hydrogen pipe (4) to heat the liquid hydrogen into gas hydrogen.

IPC 8 full level

B01B 1/00 (2006.01); **F02M 21/02** (2006.01); **F02M 21/06** (2006.01); **F17C 7/04** (2006.01); **F17C 9/02** (2006.01); **F28D 9/00** (2006.01); **F28D 21/00** (2006.01); **H05B 6/10** (2006.01)

CPC (source: EP)

B01B 1/005 (2013.01); **F02M 21/0206** (2013.01); **F02M 21/0287** (2013.01); **F02M 21/06** (2013.01); **F17C 9/02** (2013.01); **F28D 9/0043** (2013.01); **H05B 6/108** (2013.01); **F17C 2221/012** (2013.01); **F17C 2223/0161** (2013.01); **F17C 2223/033** (2013.01); **F17C 2223/046** (2013.01); **F17C 2225/0123** (2013.01); **F17C 2225/033** (2013.01); **F17C 2227/0304** (2013.01); **F17C 2227/0393** (2013.01); **F17C 2260/042** (2013.01); **F17C 2265/066** (2013.01); **F17C 2270/0189** (2013.01); **F28D 2021/0033** (2013.01); **F28D 2021/0047** (2013.01); **F28D 2021/0064** (2013.01)

Citation (applicant)

US 2007193717 A1 20070823 - TURINI JUERGEN [DE], et al

Citation (search report)

- [X] US 2018180367 A1 20180628 - FOLK ROBERT [CA], et al
- [A] US 2018128211 A1 20180510 - PEREZ ALBERTO MARTIN [US]
- [A] US 2012118878 A1 20120517 - KIM SEONG KYUN [KR], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4275775 A1 20231115

DOCDB simple family (application)

EP 22382462 A 20220512