

Title (en)
SOLAR POWERED SYSTEMS AND METHODS FOR GENERATING HYDROGEN GAS AND OXYGEN GAS FROM WATER

Title (de)
SOLARBETRIEBENE SYSTEME UND VERFAHREN ZUR ERZEUGUNG VON WASSERSTOFFGAS UND SAUERSTOFFGAS AUS WASSER

Title (fr)
SYSTÈMES À ÉNERGIE SOLAIRE ET PROCÉDÉS POUR GÉNÉRER DE L'HYDROGÈNE GAZEUX ET DE L'OXYGÈNE GAZEUX À PARTIR DE L'EAU

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EP 3247820 A4 20171129 (EN)

Application
EP 16740578 A 20160119

Priority
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• US 2016013872 W 20160119

Abstract (en)
[origin: WO2016118487A1] Solar-powered systems and methods of generating hydrogen gas and oxygen gas from water are described. A solar-powered system for generating hydrogen gas and oxygen gas from water includes an electrolysis unit, a first generator unit, and a solar-powered turbine unit. The electrolysis unit is powered by the first generator unit. The solar-powered turbine unit is configured to drive the first generator unit and to supply steam to the electrolysis unit. The solar-powered turbine unit includes a first turbine coupled to and configured to provide shaft work to the first generator unit, a steam generation unit coupled to the steam feed inlet of the electrolysis unit and configured to hold water; and a solar unit configured to generate and provide heat to the steam generation unit.

IPC 8 full level
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Citation (search report)
• [X] US 2013252121 A1 20130926 - OPPENHEIM JUDITH PAULINE [US]
• [A] US 2004202914 A1 20041014 - SRIDHAR K R [US], et al
• [A] US 5331806 A 19940726 - WARKENTIN DANIEL A [CA]
• [A] US 2014203557 A1 20140724 - KIM KIHYUNG [US], et al
• [A] US 2014298810 A1 20141009 - ROBINSON GEOFFREY [US]
• See also references of WO 2016118487A1

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DOCDB simple family (application)
US 2016013872 W 20160119; CN 201680004484 A 20160119; EP 16740578 A 20160119; KR 20177017172 A 20160119; US 201615111114 A 20160119