

Title (en)

PROCESS FOR PRODUCING HYDROGEN FROM WATER USING LIGHT ENERGY AND AQUEOUS COMPOSITIONS.

Title (de)

VERFAHREN ZUR HERSTELLUNG VON WASSERSTOFF UNTER VERWENDUNG VON LICHTENERGIE UND WÄSSRIGEN ZUSAMMENSETZUNGEN.

Title (fr)

PROCEDE D'EXTRACTION D'HYDROGENE DE L'EAU UTILISANT L'ENERGIE LUMINEUSE ET DES COMPOSITIONS AQUEUSES.

Publication

**EP 0048710 A4 19820618 (EN)**

Application

**EP 80900812 A 19800404**

Priority

US 8000360 W 19800404

Abstract (en)

[origin: WO8102851A1] Hydrogen gas is used in industrial processes. It has potential as a fuel and as a chemical raw material but large quantities are needed. The present processes for obtaining hydrogen from hydrocarbons and/or producer gas or by electrolysis of water are generally not economical. The present invention provides a process for producing hydrogen from water using light as the energy source, and aqueous compositions used in said process. Said aqueous compositions comprise at least one photo-excitabile reagent which absorbs light to donate an electron and produce hydrogen. The compositions also contain a solvent and at least one reagent selected from the group consisting of chain reaction agents which are free radical formers, and spectral sensitizers, and preferably at least one reagent of each of these two types.

IPC 1-7

**B01J 19/12**

IPC 8 full level

**C01B 3/04** (2006.01)

CPC (source: EP)

**C01B 3/04** (2013.01); **Y02E 60/36** (2013.01)

Citation (search report)

- US 4211621 A 19800708 - PORTER GEORGE [GB]
- FR 2394039 A1 19790105 - NAT RES DEV [GB]
- EP 0015522 A2 19800917 - STUDIENGESELLSCHAFT KOHLE MBH [DE]
- GB 2060702 A 19810507 - ENGELHARD MIN & CHEM

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**US 8000360 W 19800404**; AU 5994580 A 19800404; EP 80900812 A 19800404; GB 8136137 A 19800404; JP 50096080 A 19800404