

Title (en)

FUEL CELL SYSTEM AND METHOD FOR PRODUCING ELECTRICAL ENERGY

Title (de)

BRENNSTOFFZELLENSYSTEM UND VERFAHREN ZUR ERZEUGUNG ELEKTRISCHER ENERGIE

Title (fr)

SYSTEME ET PROCEDE FAISANT APPEL A UNE PILE A COMBUSTIBLE POUR PRODUIRE DE L'ENERGIE ELECTRIQUE

Publication

EP 1554768 A2 20050720 (EN)

Application

EP 03809028 A 20031015

Priority

- US 0332614 W 20031015
- US 27328002 A 20021017

Abstract (en)

[origin: WO2004036667A2] A fuel cell system has a fuel cell disposed within a fuel cell enclosure for electrochemically combining externally supplied oxygen with hydrogen to produce direct-current electrical energy and water as a reaction product. A hydrogen-containing fuel such as a chemical hybride contained within a fuel container receives the by-product water and reacts therewith to produce hydrogen, which is supplied to the fuel cell to sustain operation thereof without need of adding externally supplied hydrogen. The integration of the supply of hydrogen with the fuel cell results in a weight and volume reduction as well as internal chemical control of the production of hydrogen to sustain the electrical power generation and internal water management whereby liquid water emission is substantially reduced.

IPC 1-7

H01M 8/04

IPC 8 full level

H01M 8/04 (2006.01); **H01M 8/06** (2006.01); **H01M 8/12** (2006.01); **H01M 8/18** (2006.01)

IPC 8 main group level

H01M (2006.01)

CPC (source: EP ES KR)

H01M 8/04 (2013.01 - KR); **H01M 8/04089** (2013.01 - ES); **H01M 8/04156** (2013.01 - EP ES); **H01M 8/06** (2013.01 - KR);
H01M 8/065 (2013.01 - EP ES); **Y02E 60/50** (2013.01 - EP)

Designated contracting state (EPC)

FR GB IT

DOCDB simple family (publication)

WO 2004036667 A2 20040429; **WO 2004036667 A3 20040624**; AU 2003301472 A1 20040504; AU 2003301472 A8 20040504;
BR 0315399 A 20050823; CA 2501735 A1 20040429; CN 1706064 A 20051207; EP 1554768 A2 20050720; ES 2299324 A1 20080516;
ES 2299324 B1 20090508; FI 20050389 A 20050415; JP 2006503414 A 20060126; KR 20050052533 A 20050602

DOCDB simple family (application)

US 0332614 W 20031015; AU 2003301472 A 20031015; BR 0315399 A 20031015; CA 2501735 A 20031015; CN 200380101657 A 20031015;
EP 03809028 A 20031015; ES 200550024 A 20031015; FI 20050389 A 20050415; JP 2004545297 A 20031015; KR 20057006327 A 20050413