

Title (en)

ELECTROLYSIS APPARATUS, INTERNAL COMBUSTION ENGINE COMPRISING THE ELECTROLYSIS APPARATUS, AND VEHICLE COMPRISING THE INTERNAL COMBUSTION ENGINE

Title (de)

ELEKTROLYSEVORRICHTUNG, BRENNKRAFTMASCHINE MIT DER ELEKTROLYSEVORRICHTUNG UND FAHRZEUG MIT DER BRENNKRAFTMASCHINE

Title (fr)

APPAREIL D'ÉLECTROLYSE, MOTEUR À COMBUSTION INTERNE COMPRENANT L'APPAREIL D'ÉLECTROLYSE ET VÉHICULE COMPRENANT LE MOTEUR À COMBUSTION INTERNE

Publication

EP 2102386 A2 20090923 (EN)

Application

EP 07854616 A 20071112

Priority

- US 2007084454 W 20071112
- US 59894106 A 20061113
- US 93833907 A 20071112

Abstract (en)

[origin: WO2008063967A2] An electrolysis apparatus comprising an enclosure 110, a first electrode 221 disposed within the enclosure, a second electrode 236 disposed within the enclosure, and at least one electromagnetic energy radiator 241 disposed within the enclosure. The apparatus further comprises a power source 210 disposed external to the enclosure, where that power source is interconnected with the first electrode such that the first electrode comprises a cathode, and where the power source is interconnected with the second electrode such that the second electrode comprises an anode. The apparatus further comprises at least one oscillator 254 disposed external to the enclosure, where each oscillator is interconnected to a different electromagnetic energy radiator. An engine system comprising an electrolysis apparatus 100 interconnected to an internal combustion engine 620. The electrolysis apparatus cleaves water into a mixture of hydrogen gas and oxygen gas. The mixture of hydrogen gas and oxygen gas is input into, and fuels, the internal combustion engine. A vehicle 600 comprising the engine system.

IPC 8 full level

C25B 9/00 (2006.01); **H01M 8/02** (2006.01)

CPC (source: EP)

C25B 9/00 (2013.01); **C25B 11/04** (2013.01); **C25B 15/00** (2013.01); **F02M 25/12** (2013.01); **F02M 27/04** (2013.01); **B60K 6/24** (2013.01); **Y02E 60/36** (2013.01); **Y02T 10/12** (2013.01); **Y02T 10/62** (2013.01)

Citation (search report)

See references of WO 2008063967A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008063967 A2 20080529; **WO 2008063967 A3 20090528**; CA 2669394 A1 20080529; EP 2102386 A2 20090923; JP 2010509504 A 20100325; MX 2009005063 A 20091028

DOCDB simple family (application)

US 2007084454 W 20071112; CA 2669394 A 20071112; EP 07854616 A 20071112; JP 2009537297 A 20071112; MX 2009005063 A 20071112