

Title (en)

ENERGY/MATTER CONVERSION METHODS AND STRUCTURES

Title (de)

ENERGIE/MASSE-UNWANDLUNGSVERFAHREN UND -STRUKTUREN

Title (fr)

PROCEDES ET STRUCTURES DE CONVERSION ENERGIE/MATIERE

Publication

EP 0741903 A1 19961113 (EN)

Application

EP 94920641 A 19940301

Priority

- US 9402219 W 19940301
- US 7510293 A 19930611
- US 10735793 A 19930816

Abstract (en)

[origin: WO9429873A2] Methods and apparatus for releasing energy from hydrogen atoms (molecules) by stimulating their electrons to relax to quantized lower energy levels and smaller radii (smaller semimajor and semiminor axes) than the "ground state" by providing energy sinks or means to remove energy resonant with the hydrogen energy released to stimulate these transitions. An energy sink, energy hole, is provided by the transfer of at least one electron between participating species including atoms, ions, molecules, and ionic and molecular compounds. In one embodiment, the energy hole comprises the transfer of t electrons from one or more donating species to one or more accepting species whereby the sum of the ionization energies and/or electron affinities of the electron donating species minus the sum of the ionization energies and/or electron affinities of the electron accepting species equals approximately $m \times 27.21 \text{ eV}$ ($m \times 48.6$) for atomic (molecular) hydrogen below "ground state" transitions where m and t are integers. The present invention further comprises methods and structures to conform the energies of the source, hydrogen, and the sink, energy hole, to enhance the transition rate. The energy reactor includes one of an electrolytic cell, a pressurized hydrogen gas cell, and a hydrogen gas discharge cell.

IPC 1-7

G21B 1/00

IPC 8 full level

G21B 1/00 (2006.01); **C01B 3/00** (2006.01); **F02G 1/043** (2006.01); **G21B 3/00** (2006.01)

CPC (source: EP)

F02G 1/043 (2013.01); **G21B 3/00** (2013.01); **F02G 2254/11** (2013.01); **Y02E 30/10** (2013.01)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9429873 A2 19941222; WO 9429873 A3 19950216; AU 698058 B2 19981022; AU 7135694 A 19950103; BR 9406829 A 19960402; CA 2164713 A1 19941222; EP 0741903 A1 19961113; EP 0741903 A4 19960916; EP 1684311 A2 20060726; HU 9503521 D0 19960228; HU T73225 A 19960628; JP 2005099016 A 20050414; JP 2007163503 A 20070628; JP 2008275596 A 20081113; JP H09502796 A 19970318; RU 2193241 C2 20021120

DOCDB simple family (application)

US 9402219 W 19940301; AU 7135694 A 19940301; BR 9406829 A 19940301; CA 2164713 A 19940301; EP 06009966 A 19940301; EP 94920641 A 19940301; HU 9503521 A 19940301; JP 2004263030 A 20040809; JP 2007000009 A 20070103; JP 2008077487 A 20080325; JP 50172995 A 19940301; RU 96102129 A 19940301