

THERMOPHOTOVOLTAIC ELECTRICAL POWER GENERATOR

ABSTRACT

A molten metal fuel to plasma to electricity power source that provides at least one of electrical and thermal power comprising (i) at least one reaction cell for the catalysis of atomic hydrogen to form hydrinos, (ii) a chemical fuel mixture comprising at least two components chosen from: a source of H_2O catalyst or H_2O catalyst; a source of atomic hydrogen or atomic hydrogen; reactants to form the source of H_2O catalyst or H_2O catalyst and a source of atomic hydrogen or atomic hydrogen; and a molten metal to cause the fuel to be highly conductive, (iii) a fuel injection system comprising an electromagnetic pump, (iv) at least one set of electrodes that confine the fuel and an electrical power source that provides repetitive short bursts of low-voltage, high-current electrical energy to initiate rapid kinetics of the hydrino reaction and an energy gain due to forming hydrinos to form a brilliant-light emitting plasma, (v) a product recovery system such as at least one of an electrode electromagnetic pump recovery system and a gravity recovery system, (vi) a source of H_2O vapor supplied to the plasma and (vii) a power converter capable of converting the high-power light output of the cell into electricity such as a concentrated solar power thermophotovoltaic device and a visible and infrared transparent window or a plurality of ultraviolet (UV) photovoltaic cells or a plurality of photoelectric cells, and a UV window.

Fig. 2I25