

# Water Fuel Cell

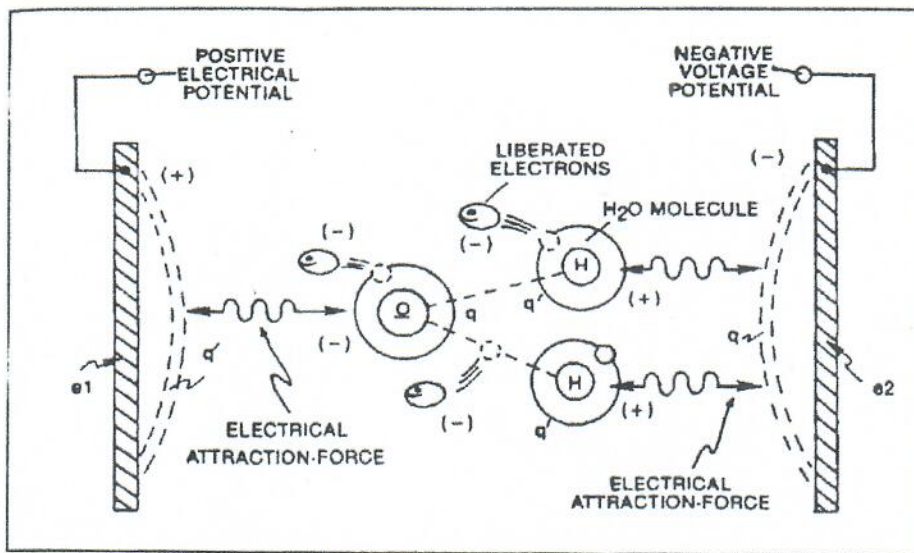


Figure 1-5. Electrical Polarization Process

(pulsing electrical voltage fields of opposite polarity) through the Electrical Polarization Process...imparting or superimposing a second physical-force (particle-impact) unto the electrically charged water bath. Oscillation (back and forth movement) of an electrically charged particle by way of voltage deflection is hereinafter called **"Resonant Action,"** as illustrated in Figure 12.

Attenuating and adjusting the **"pulse-voltage-amplitude"** with respect to the **"pulse voltage frequency,"** now, produces hydrogen gas on demand while restricting amp flow.

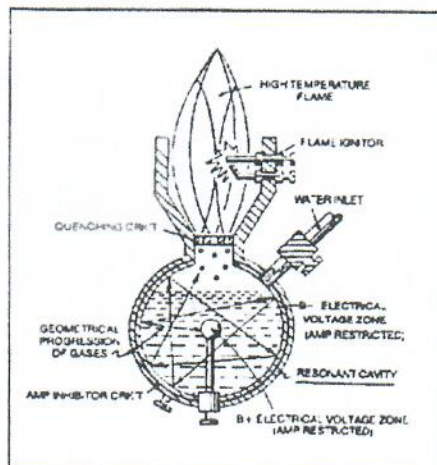


Figure 12: Electrical Voltage Zones (B-/B+) Forming A Resonant-Cavity

## LASER INTERACTION

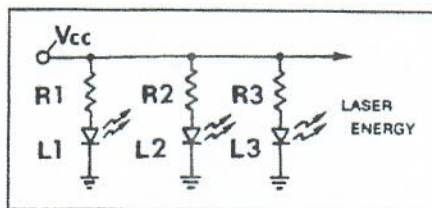


Figure 1-6. Led Cluster-Array

**Light-emitting diodes** arranged in a Cluster-Array provides and emits a narrow band of visible light energy into the voltage stimulated water bath, as illustrated in Figure 19 as to Figure 18. The absorbed **Laser Energy** (Electromagnetic Energy) causes many atoms to lose electrons while highly energizing the liberated combustible gas ions prior to and during thermal gas-ignition. Laser or light intensity is linear with respect to the forward current through the **LEDs**, and, is determined by

$$R_s = \frac{V_m - V_{led}}{I_{led}}$$

Where

$I_{led}$  is the specified forward current (typically 20ma. per diode);  $V_{led}$  is the LED voltage drop (typically 1.7 volts for red emitters).

Ohm's Law for LED circuit in parallel array, and, is given by

$$P_{watts} = V_{cc} I_f$$

Where

$I_f$  is the forward current through LED cluster-Array;  $V_{cc}$  is volts applied (typically 5 volts).

Whereby

Laser or light intensity is variable as to duty cycle on/off pulse-frequency from 1Hz to 65 Hz and above is given by

$$L_c = \sqrt{\frac{(ION)2 \times T_1}{T_1 + T_2}}$$

$L_c$  is light intensity in watts;  $T_1$  is current on-time;  $T_2$  is current off-time; and (ION) = RMS value of load current during on-period.

Injecting Laser Energy into the Electrical Polarization Process and controlling the intensity of the light-energy causes the Combustible Gases to reach a higher energy-state (electromagnetically priming the combustible gas ions) which, in turn, accelerates gas production while raising gas-flame temperatures beyond "normal" gas-burning levels.

Injecting "Electromagnetically Primed" and "Electrically Charged" combustible gas ions (from water) into other light-activated Resonant Cavities further promotes gas-yield beyond voltage/laser stimulation, as illustrated in Figure 20D as to Figure 20.

## ELECTRON EXTRACTION PROCESS

Exposing the displaced and moving combustible gas atoms (exiting waterbath and passing through **Gas Resonant Cavity (T)**, Figure 20JX as to Figure (20H) to another or separate pulsating laser energy-source (V) at higher voltage levels (E3/E4) causes more electrons to be **"pulled away"** or **"dislodged"** from the gas atoms, as illustrated in Figure 1-8 as to Figure 20F. The absorbed Laser Energy **"forces"** or **"deflects"** the electrons away from the gas atom nucleus during voltage-pulse Off-Time. The recurring positive voltage-pulse (k) attracts (qq') the liberated negative elec-