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Neutrovoltaic cell

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See Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva305.pdf
www.wbabin.net/saraiva/saraiva306.pdf
www.wbabin.net/saraiva/saraiva307.pdf
www.wbabin.net/saraiva/saraiva328.pdf
www.wbabin.net/stham/saraiva347.pdf

A Josephson junction is a neutrovoltaic cell. Like a photovoltaic cell detects photons, the Josephson junctions detect the sun neutrinos and generate electricity.

The Josephson junctions have a current and a resistance, so they have voltage and power.

An array with one squared meter can generate 840 Watt and works all day and night.

The neutrino is the magnetic monopole.

Josephson frequency:

$$f = \frac{2q_e}{h} V = \frac{V}{\Phi_0}$$

For V = 1 ⇔ $f = 4.836 \times 10^{14}\ Hz$

$$V = \frac{n\Phi_0}{t} \quad \Leftrightarrow \quad f = \frac{n}{t}$$

$$n = 4.836 \times 10^{14}\ s^{-1}$$

Dirac quantization:

$$2q_e\Phi_0 = h \quad \Leftrightarrow \quad \Phi_0 = q_m$$

f -- Frequency; q_e -- Electric charge; h – Planck constant; V – Voltage;
$\Phi_0 = q_m$ -- Magnetic charge (Weber); t – Time.

Number of the sun neutrinos observed on earth:

$$N = 2.42 \times 10^{14}\ m^{-2} s^{-1} \quad \Leftrightarrow \quad n = 2N$$

The neutrinos from the sun come as Cooper-pairs.

Voltage and current at the junctions (approximation):

$$V_0 = \frac{3.5k_B T_c}{q_e} \; ; \qquad I_0 = \frac{3.5k_B T_c}{\alpha . q_m}$$

Resistance:

$$R_0 = \frac{\alpha . h}{2{q_e}^2} \; ; \qquad \alpha \text{ -- Fine structure constant.}$$

All the real values are variable.

For $T_c = 90K$:

$$V_0 = 27mV \; ; \qquad I_0 = 0.29mA \; ; \qquad R_0 = 94.2\Omega$$

Power:

$$P_0 = 7.83\mu W$$

Area of the junction:

$$A = 6.4 \times 10^{-11} m^2$$

Power of an array with one squared meter:

$$P_T = 122.3kW$$

Number of junction:

$$n_0 = 125000 \times 125000$$

Thermoelectric effect corrections

Voltage:

$$V_E = ST = n\mu_0 T$$

V_E -- Voltage; S – Thermoelectric power; T – Temperature;
μ_0 -- Vacuum permeability; n – A small number.

$$S = E/(\Delta^2 T/\Delta x^2)$$

E – Electric field; x = L – Distance; V – Speed.

$$\frac{\Delta E_Y}{\Delta t} = \Pi_{AB} I_E$$

E_Y -- Energy or heat; t – Time; Π_{AB} -- Peltier coefficient; I_E -- Current.

$$\Pi_{AB} = \frac{1}{S}$$

Spectral irradiance, Q:

$$Q = \frac{\Delta E_Y}{\Delta t L^3} = \rho J^2 - SJ\frac{\Delta T}{\Delta x}$$

L^3 -- Volume; ρ -- Resistivity; J – Current density.

$Z = \frac{\sigma.S^2}{k}$; σ -- Conductivity; k – Thermal conductivity.

$$Z = \frac{1}{Force}$$

$$ZT = \frac{S^2 T}{\rho.k} = L^{-1}$$