

Capacitance and inductance of the vacuum

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See the 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

www.wbabin.net/stham/saraiva366.pdf

Permittivity squared under permeability squared is an energy!

$$\frac{L}{C} = \frac{\mu_0}{\epsilon_0} ; \quad E_0 = \frac{\epsilon_0^2}{\mu_0^2}$$

$$2\pi \cdot f_0 = \frac{1}{\sqrt{LC}} \quad \Leftrightarrow \quad f_0 = \frac{E_0}{h} = \frac{\epsilon_0^2}{h\mu_0^2}$$

$$2\pi \frac{\epsilon_0^2}{h\mu_0^2} = \frac{1}{\sqrt{LC}} ; \quad L = \frac{\mu_0}{\epsilon_0} C$$

L – Inductance; C – Capacitance; μ_0 -- Vacuum permeability;

ϵ_0 -- Vacuum permittivity; f_0 -- Vacuum frequency; E_0 -- Vacuum energy;

h – Planck constant.

Vacuum capacitance:

$$C_0 = \frac{h}{2\pi} \left(\frac{\mu_0}{\epsilon_0} \right)^{3/2} = 5.64 \times 10^{-27} \text{ Farad}$$

Vacuum inductance:

$$L_0 = \frac{h}{2\pi} \left(\frac{\mu_0}{\epsilon_0} \right)^{5/2} = 8.003 \times 10^{-22} \text{ Henry}$$

Speed and distance

Everything is made only of speed and distance.

Silicon permittivity:

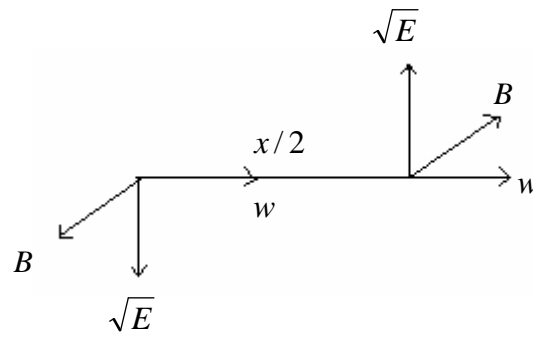
$$\varepsilon = 11.68\varepsilon_0 = 1.034 \times 10^{-10} m$$

Silicon covalent radius:

$$R = 1.1 \times 10^{-10} m$$

The permittivity is a vector and a distance!

The electromagnetic waves are made of speed and distance:



Speeds: \sqrt{E} , B , $w = c$; E – Electric field; B – Magnetic field.

We see speed or variation of position.

We see distance or dimension.

We never see time.

Time doesn't exist in nature and is a derived unit.

Speed is the variation of distance:

$$V = \Delta L ; \quad V - \text{Speed}; L - \text{Distance.}$$

Quantity of speed:

$$V = \frac{\Delta L}{\Delta L_0 / V_0} = nV_0$$

$$\Delta L_0 = c = 3 \times 10^8 m ; \quad L_G = \frac{1}{\sqrt[3]{G}} = 2.4653 \times 10^3 m$$

G – Gravitational constant.

$$\frac{\Delta L_0}{L_G} \approx 2\pi 137^2$$