

sci.physics: Re: Does "c" loose some velocity after leaving a dense medium back into space?

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Source: <http://sci.tech-archive.net/Archive/sci.physics/2005-03/12004.html>

From: John C. Polasek (jpolasek_at_cfl.rr.com)

Date: 03/23/05

Date: Wed, 23 Mar 2005 13:13:06 -0500

On Wed, 23 Mar 2005 17:36:22 +0000 (UTC), bz
<bz+sp@ch100-5.chem.lsu.edu> wrote:

>John C. Polasek <jpolasek@cfl.rr.com> wrote in
>news:n27341t2jrj1aq4q5tn40i6qpi9bu5b53p@4ax.com:
>
>> I have a high frequency cutoff 2.6e21hz in
>> Espace needed to solve the ultraviolet problem.
>
>The wavelength associated with this frequency is 1.1e-13m which is much
>larger than the classical electron radius. The energy is 1.7e-12J.

The classical radius of the electron is not a real radius merely
cooked as furnishing sufficient area to store its self energy. My
cell size lambda is $4\pi \times R_{cl} 2.2e-15m$.

>Is there some magic reason for this value as a high frequency cutoff?
No, this is not QED. This is solid science with plenty of numbers to
go around and every one of them derivable and provable, except for
inspirational gelandersprungs!

The electron and positron are bound inside the cell lambda with a
spring constant K (like the strong force) and have a resonant
frequency given by

$$\omega = \sqrt{K/m_e} \text{ see Eq. 11}$$
$$\text{where } K = 2.612 \times 10^{14} \text{N/m}$$

in my permittivity paper at dualspace.net. Electric fields occurring
at this frequency would tear up space so that's the ultraviolet limit.

See Eq. 14 that shows

$$\epsilon_0 = 2\rho \cdot e/K$$

meaning that ϵ_0 is the compliance of space to polarization: it's
proportional to charge e , charge density ρ and inverse to the
aformentioned spring K .

Read the paper, saves typing.

Mr. Dual Space

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If you have something to say, write an equation.

If you have nothing to say, write an essay