

# Re: A CHALLENGE

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- *From:* [vergon@xxxxxxxx](mailto:vergon@xxxxxxxx)
  - *Date:* 25 Sep 2006 08:35:24 -0700
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<vergon@xxxxxxxx> wrote in message  
[news:1159147998.111510.20820@xx](mailto:news:1159147998.111510.20820@xx)

Well, the dummies and the crude have had their say --- which was absolutely worthless

So you can't say I was bluffing, I present here the answer -- which I bet you don't even understand the question let alone the answer, even when given to you. That's how dumb you actually are.

The core of the endeavor to reconcile the kinetic energy of an electromagnetic particle with the corresponding kinetic energy of a ponderous particle is the correlation of the velocity  $c$  of the former with the sub  $c$  velocity of the latter.

To restate: Both particles have the same kinetic energy and the same mass. The question is, what is the velocity of the ponderous particle?

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( $h \nu$  = energy of photon =  $n(m_q) c^2$  --- where  $n$  = number of oscillations and  $m_q$  the mass of each oscillation ---  $7.3720385 \times 10^{-48}$  gram.)

$n(m_q)$  = mass of the photon.

( $m$  = mass of the ponderous particle.  $R$  = Lorentz transform)

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Seeking a bridge, we write,

$$1$$

$$h \nu = n(m_q) c^2 = mc^2 \left( \frac{1}{R} - 1 \right)$$

$$R$$

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The crux lies in the second and third terms ( $K_e = K_e$ ) which we write

$$\frac{1}{R} (nm_q)c^2 = mc^2 \left( \frac{1}{R} - 1 \right)$$

Where  $nm_q = m_{ph}$ , mass of the photon:

$$\frac{1}{R} m_{ph} c^2 = mc^2 \left( \frac{1}{R} - 1 \right)$$

The  $c^2$ s cancel. We then have:

$$\frac{1}{R} m_{ph} = m \left( \frac{1}{R} - 1 \right)$$

Thus if  $m_{ph} = m$ , then  $\left( \frac{1}{R} - 1 \right)$  must be equal to 1  
R  
to maintain the equality.

If  $R = .5$  this requirement is met. A velocity of  $.8660254 c$  or

$\sqrt{.75} c$  has the requisite R of  $.5$

Therefore, by utilization of  $nm_q$  we conclude that (for example) a photon of frequency  $1.23561 \times 10^{20}$  has a mass equal to that of the electron and both will have the same kinetic energy when the velocity of the electron is  $\sqrt{.75} c$ .

To restate the case for clarity:

If a photon (velocity  $c$ ) were to suddenly transform into a particle of identical mass it would, in obeying the conservation of kinetic energy, have a velocity of  $.8660254 c$

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