

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

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

**Source:** <http://sci.tech-archive.net/Archive/sci.physics/2005-03/12131.html>

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**From:** Bill Hobba ([bhobba\\_at\\_rubbish.net.au](mailto:bhobba_at_rubbish.net.au))

**Date:** 03/23/05

Date: Wed, 23 Mar 2005 23:15:13 GMT

"John C. Polasek" <[jpolasek@cfl.rr.com](mailto:jpolasek@cfl.rr.com)> wrote in message  
news:n27341t2jrj1aq4q5tn40i6qpi9bu5b53p@4ax.com...

> On Wed, 23 Mar 2005 04:41:09 GMT, "Bill Hobba" <[bhobba@rubbish.net.au](mailto:bhobba@rubbish.net.au)>  
> wrote:

>

>>

>> "John C. Polasek" <[jpolasek@cfl.rr.com](mailto:jpolasek@cfl.rr.com)> wrote in message

>>> news:jln141pf2475me3887rm07e26j5o6d9qr6@4ax.com...

>>> On Tue, 22 Mar 2005 22:28:38 GMT, "Bill Hobba" <[bhobba@rubbish.net.au](mailto:bhobba@rubbish.net.au)>

>>> wrote:

>>>

> CHOP

>>>>

>

>>> You dodged. I asked you for one example where QED was so fantastically

>>> accurate.

>>

>>> If that is what you meant then express yourself more clearly. See any

>>>> article on QED eg the following from the Encyclopedia Britannica

>>>>> [http://www.britannica.com/nobel/micro/489\\_26.html](http://www.britannica.com/nobel/micro/489_26.html)

>>>

>>>> 'Some of the most precise tests of QED have been experiments dealing with

>>>>> the properties of muons. The magnetic moment of this type of subatomic

>>>>> particle, for example, has been shown to agree with the theory to six

>>>>> significant digits. Agreement of such high accuracy makes QED one of the

>>>>> most successful physical theories so far devised.'

>>>>> Yup that's what the tutorial says. No example given.

>>>

>>>> You think QED has the vacuum all worked out. What's in it? Feynman

>>>>> diagrams?

>>>>>

>>>

>>>> Something you obviously do not understand – a broiling sea of virtual

>>>>> particles – but it is doubtful you even understand what a virtual

particle

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- > >is. Hint it is an off mass shell contribution from the propagator – see
- > >page 19 of Zee – *Quantum Field Theory in a Nutshell*.
- >
- > "broiling sea of virtual particles"?
- > I don't know what a virtual particle is?

Sure do – it is the off mass shell terms from the propagator – see <http://encyclopedia.laborlawtalk.com/propagator>. See the formula for the position space propagator – notice the  $p^2 - m^2 + ie$  in the denominator? That means most of the contribution to that integral will come from values of  $p$  close to  $m$  and are called on mass shell; other values are called off mass shell. For values of  $p$  different from  $m$  it is linguistic jargon to call them virtual particles. But they are no less real than values close to  $m$  – they simply make less contribution to the propagator. All this is discussed on page 25 Zee – QFT in a Nutshell. John have you ever actually read a book on the theory you are so critical of? You seem to not understand even the most elementary basics. There is a reason the references I am giving are from the early pages of Zees book – they are fundamental.

- > *It's in my permittivity*
- > *paper. The pairs confined in cells  $Lam = 3.5 \times 10^{-14}m$  are virtual and*
- > *not yet created. Their exact density accounts for the exact value of*
- > *permittivity. They polarize up to  $10^{20}V/m$ , after which, cosmic rays*
- > *for example, they emerge as temporary pairs ala Anderson 1932.*

First I have shown repeatedly your historical account of positrons is a total fabrication. Second discourse in an area is greatly enhanced if one uses the standard language of that area. Let us stick with the usual definitions and not your concocted ones. Call it whatever you like but stitch with current deflections for words already in use.

- >
- > *Creation consists of removing electrons only, at cost of  $1/2 mc^2$  and*
- > *are accelerated to the speed of light for another  $1/2 mc^2$ .*
- >

A massive particle can not be accelerated to the speed of light.

Rest of incomprehensible rubbish mercifully snipped.

Bill