

Re: Glass a speed to frequency transformer?

Source: <http://sci.tech-archive.net/Archive/sci.physics/2005-08/msg02087.html>

- *From:* Jan Panteltje <pNaonStpealmtje@xxxxxxxxxx>
 - *Date:* Mon, 15 Aug 2005 14:20:42 GMT
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On a sunny day (15 Aug 2005 06:23:23 -0700) it happened "Randy Poe" <poespam-trap@xxxxxxxxxx> wrote in <1124112203.546610.205990@xx>:

>
>Jan Panteltje wrote:
>> I want to point to some thoughts I have on the matter:
>>
>> Can we not look upon any piece of glass such as a mirror or a lens
>> as a speed-to-frequency transformer?
>
>No.
Prove it?

>> This is why I think that:
>> When light is emitted as $c + v$,
>
>What evidence do you have that light is ever emitted at
>speed $c+v$? From what? What is v ?
 v is the speed of the source of cause.
The test I proposed (see otehr posting) should prove / disprove that).

>> when it hits glass the following happens:
>>
>> the atoms in the glass pass through the maxima and minima in the wave at
>> $c + v$.
>> They see a different frequency (higher if v positive).
>> These atoms then emit new light, with the new frequency, in their reference
>> frame $c + v'$ (v is the speed of the glass).
>
>That's not a frequency.
Yes it is, say the light has a wavelength of 1000 nm, and is emitted at speed C .
Then, as $f = c / \text{wavelength}$:
 $f = 3 * 10^8 / 10^{-6} = 3 * 10^{14}$ Hz.
So $3 * 10^{14}$ maxima of the signal will hit the glass.
If we move the light source TOWARDS the glass, we hit MORE maxima of the signal,
so the 'hit frequency' is $> 3 * 10^{14}$ Hz.

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In the glass (I have learned) the atoms re-emit the light, with speed C relative to the glass itself, but triggered by the incoming maxima!

So now we have $> 3 * 10^{14}$ Hz at C , and the wavelength is f / c :

as f is now bigger, the wavelength is shorter, and the light blue shifted.

And it travels at C .

So we have a speed $c + v$ transformation to c .

And we have a frequency transformation too (and thus a wavelength change).

this is similar to Doppler.

Who needs relativity?

The experimenter will think light moves at c , grab the Einstein papers, and use relativity NOT DOPPLER to explain the shift.

There is a difference.

If Einstein truly based his believe on the fact that the speed of light is constant on experiments like MM, then as that uses reflected light in mirrors, lenses, it is in my view possible he based his theory on the wrong facts.

Because how can you teach light is 're-emitted' by atoms locally, and then explain<----- the frequency shift?

I give an explanation with the above mechanism $c + v$.

I need that Swedish money, you know ;-)

It seems so much more elegant that bended space time minds whatever.

.

• *Follow-Ups:*

- ◆ *Re: Glass a speed to frequency transformer?*

◇ *From:* tj Frazir

• *References:*

- ◆ *Glass a speed to frequency transformer?*

◇ *From:* Jan Panteltje

- ◆ *Re: Glass a speed to frequency transformer?*

◇ *From:* Randy Poe

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