



Light's Fundamentals

Leonard Van Zanten

Independent Researcher , 5428 Bushnell Riverside Ca 92505, USA

E-mail: lenvanzanten@msn.com

(Received Nov 2014; Published Dec 2014)

ABSTRACT

Current theory has it that as light passes from one medium to another, that it is the change in velocity that 'causes' the light to be refracted entering the new medium at a different angle, also known as the Huygens principle. Evidence however proves this to be in error, since light's velocity (by common knowledge) changes in the normal as well as by refraction, nor will it refract in the normal. A change in density affects velocity, and only velocity. While a change in direction is accomplished by angular deviation, by the angle of incidence at which each separate wavelength strikes the surface out of the normal.

Keywords: Light, Refraction Velocity, Incidence

DOI:10.14331/ijfps.2014.330079

INTRODUCTION

The advancement in science should always be to find the truth of the matter. This will come by experiment as well as what is factually presented to us in and by nature itself. But even more so in a grant of knowledge and understanding that man's Creator may infuse within any person. Experiment of any kind is of no greater value than the understanding that we have of it. And with this thesis my aim is to award mankind with a greater and more correct understanding in the nature of light.

'waves of', it concludes for an angular moment to exist upon that line. Or how else do we speak of a wave? That angular moment then is in fact the identity of the wave, it being less for the long waves, and more acute for the shorter waves, as illustrated by Fig 1.

This illustration shows the enlargement in the diameter of a beam of light struck upon a prism showing the angular tangents of the individual wavelets, in this case the 7000Å and 4000Å lengths, each to refract according to their own angle of incidence. The 4000Å being of a greater angle deflects equally more. When a single wavelet (R-X) is to pass by a length of 7000Å its angular deviation must be less in comparison to that of the blue (B-X) wavelet to compute to a length of no more than 4000Å. When therefore a ray of light strikes a refractive surface the angle at which each wavelet comes to bear upon it varies according to each its own angular moment. By the illustration assuming the amplitude (diameter) of the wave as 1Å, the angle by which the red wave will come upon the prism is R-X-Y, while for the blue it will be B-X-Y. The blue wave thus being more acute will turn to a sharper angle as compared to the less angular moment of the red color wave.

Conclusively it is not in a varied velocity by which light comes to its dispersion, but in each wavelength for its own angular moment. And to verify this, the degree separation noted r1 to b1, must and will always be directly proportional to R-B, (the difference in the angular moments of these noted

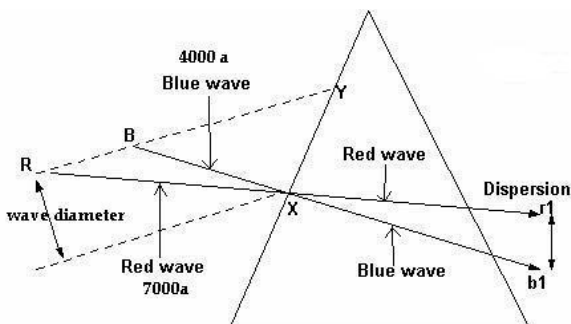


Fig 1. Light beam passing through a prism

When we speak of light in lines of, it in fact passes as such by a straight trajectory. Since then we also speak of light as

light travels in any media more dense than space. As then the light enters upon our atmosphere, the wavelet in its crest-to-crest measure is reduced (blue shifted) for the closer spacing of the atoms-it then for its full red color length of 7004.84Å literally completes itself with more of a single turn within that shorter nominal distance, and as such equates to a velocity for distance in time. As thus the index of air is 1.0003, the computation shows 42×10^{30} wavelets that then times the 7000 comes to a relative velocity of light in air at 299702 km/sec.

Table 1. Angular Wavelength as the identity of the wave, never changes by passing through any media

Medium	Vc	Index	V (km/sec)	Nominal(Å)	Angular(Å)
Space	300000	7000	299792	7000	7004.84
Air	299792	1.0003	299702	6997	7004.84
Water	299792	1.33	225407	5263	7004.84
Glass	299792	1.52	197231	4605	7004.84

This illustrates that the Angular Wavelength as the identity of the wave, never changes by passing through any media, yet for that very same reason the velocity is impaired. There is an excellent reason for light in entering upon varied densities to shift to the blue or to the red color end of the spectrum. The shift is nothing more, and nothing stranger than a simple compression or expansion of the wavelets. When light enters from air upon glass it encounters atoms much closer together along which it must pass in a circular formation. In the air-the angular length of 7004.84Å traveled by a nominal length of 7000Å for each wavelet-promoting its particular relative velocity. In glass by its compression those 7004.84Å must now complete that amount of distance in a nominal length of no more than 4,605Å. (The 4,605Å is found by the index into the nominal length of the wave.) Since then we were speaking of the red color at 7000Å-each wavelet came to a measure of 4,605Å. In encountering a denser media the light -like unto a coiled spring being compressed-is by the very nature thereof forced to make more of a turn around the circumference, that in the case of glass comes to 1.52 of a turn, a little more than one and a half times around the circumference within the now new nominal length of 4,605Å. As thus in a single turn the velocity came to 299.702 km/sec, in 1.52 of a turn the velocity (for distance

in time) slowed to 197.231 km/sec. The velocity of light-for distance in time-in any media thus corresponds directly to its length (designated 'Nominal Length') and its angular moment in the circumference (designated 'Angular Length') divided by the constant in velocity-in and by which all magnetic waves have a single identical velocity. In other words; the essence of any and all waves always travel with one single constant velocity, that for distance in time is reduced-due to and by its angular moment. The velocities of light as they have been measured for any and all media according to the index thereof conclusively shows the above to be factual. Wherefore, as such, all these are "Relative Velocities," the speed at which light is found to travel for distance in time. While light on its own never slows down for any media however dense. If this were not so-then all waves would at all times have to travel with a single velocity for distance in time. Since then this is found to be untrue, this interpretation to the nature of light is and must be the true and correct phenomena of it, as also it was given me, and I know it to be.

CONCLUSION

The fact that light in refracting upon a denser media also changes its velocity applies itself only to the change in density, it has nothing in common with refraction, the relevance of which is to incidence, and incidence only. A change in density effects light for its velocity 'relative for distance in time', since at no time is the 'true velocity of light' affected by any density, or change therein. Also, the fact that light is refracted by a mere greater spacing of the atoms above a hot road-bed-concludes that light is extremely susceptible to each and every atom in its path to expand for the slightest change in the spacing thereof. My knowledge and expertise in these matters have come from none but the education, which I received from the Lord God, Creator of all the earth. Since therefore by all observation and experiment, as well as mathematical conclusions these are found to be valid, we ought to conclude them as truths.

REFERENCES

- Zanten, L. V. (1990). Science Fundamentals. *Light's Fundamental*.