# ((In the name of God))

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## Jan.13

## Abstract

In this article we want to consider the polarization for matters and atoms. We know that if a special ray go down to the surface of a transparent matter and if it was not polarized when it beats to the transparent matter like glass and water it will reflex to polarized way (of course it be in a special angle from water to the ray or from ray to perpendicular line to the water. Now we want to say the reason of that which why effect this event. We know that the special angle is different for different matters like glass or water or… and that's because which the (n) or refracture index for different matters is different and we easily can get the special number for different matters but to this way that we should get the angle between the refracted ray and reflected way to 90° and this subject that why we should take the angle to 90° is a experiment number. So we can get the angle with the Snell law and Brewster law. And in this article we want to consider that why the angle should be 90° (to theory way).

# ((polarization))

In the past articles we had spoken about the atom mechanism and the communications between electron and proton. Also in the past articles I told my theory about atom mechanism and the electromagnetism mechanism of the light and we could get some information about the light like velocity or some mechanics and differential equations. Now here in this article I want to say something about the polarization and some qualities for waves and refracted waves or reflected waves. We know that if we had a narrow slit and we radiate a not polarized wave from the other hand of slit go out a ray that is polarized and we can say the reason of this event. We say that for example the slit got the perpendicular component of the light and it (slit) couldn't get the horizontal component. Now for the water or other transparent we can't consider that there isn't any matter for polarization because also in the slit and light experiment we had a matter for polarization which there was slit our matter.

In fact we should find a communication between matter and energy because in these experiments we saw that the matter (slit) cause to the energy (light) be to a changing way (the slit got the perpendicular component wave).As we had told the communication between matter and energy in the atom in the past articles we can say a reason for this subject. Now we remember a little: we told that the electrons are turning quickly around the nucleus of atom and then by moving the electrons

we'll have a small energy (the electron for moving took energy from around and now this energy that is caused from the mass changes can do many works like gravity or electromagnetism virtue or many other works). Here we want to use this theory and we try to say a reason for this. For this you should consider that a light wave is going down to the water and for example it want to penetrate into the water and reflect from surface of that. Here for this subject we should consider the main or special direct of the perpendicular. For example some one wants to consider the main direct and ay other one wants to consider and take the direct that isn't main or secondary direct. so in my theory system it isn't different to we get the main direct of perpendicular or no. so we follow a ray that is beating to surface of the water. If we consider a direct for example we consider the main direct it will happen to opposite of the first direct from the water (in the third Newton's law system). And also from the classic Newton's law we have that when a ray or many other things beat to a surface of another thing we'll have an energy that is freeing after the beating. For an easily subject that is about this subject we can say the prisms example that's about two prisms that are next to each other. In the physics if we radiate a ray or a special type of wave or electromagnetisms energy we'll should have that a ray or a small part of the first energy is outing from the first prism and goes to second prism and we put the second prism in this experiment that we can understand from being or not being the refracted wave. In the modern physics and quantum physics the physicist try to proof

this science subject with the atom's mechanism and the effects that are entering from photon to the atoms but here we want to say it easily with out the quantum subjects. As we told in the past paragraphs we can use from this theory for proofing many things that they are about the atoms and mechanism of them. Now here we say it (two prisms problem) in my theory system.

Also we have a same subject in the classic physics that's about:

When a ray or energy's wave is beating to surface of a thing like water or glass or extra (but here for example we consider the glass one for prisms) after the beating (or is better to say during the beating) we'll have an extra energy (It is correct that when a ray beat to a surface it can't penetrate in it of course if it wasn't the glass or transparent things and if it was a transparent thing for example the ray should radiate in the limit angle for the matter but here we want to say also if a ray goes down to a surface or many other types of energy when it is reflecting ,an energy is freeing from the beating point to out side and it is a easy subject that the proof of that I too easy) that's because when a ray is going down to a special atom of a matter when they beat to each other because the electromagnetism field or ray of light had a special energy and the atom and the electrons level had a special energy it's look like that we have to matter that when we beat them to each other we'll have a energy that's from for example matter's 1 energy add to matter's 2 energy. Also here we have two things but to this difference that one of them is a matter and the other one is energy. So here we'll have a great

problem and here we should solve the communication between matter and energy's problem. Now we should go back to the new theory. In this theory we could say the matter and energy communication but we didn't say that there is a straightly communication between matters and energies (like relativity theory or quantum mechanics) perhaps we told the energy is cause by the mass in the atom. In fact we told that (in the past articles) the electron is turning with a special spin on the special circuits around the nucleus of the atom. During the turning or perhaps is better than to say for turning the electron around the nucleus it will has an energy to it can turn. Also we told that for creating this energy we should have the force for electron to it can have the energy and when the electron is turning the energy cause to make the force back of the electron and the force cause to make the energy. In fact, this energy (that we told) cause to be many physical event (for example if we want to follow this subject to the light system we can say that: As for the light the magnetic field cause to create the electrical field and convert also here there is a communication between the force and energy and we can use them in many systems. (But it isn't completely correct that we compare the light system with here because in fact the light is from electrical and magnetic fields but here we have another work.))

Now that we could get the not straight communication between matter and energy again (but here to oral saying and like one of the Newton's principles) we can consider our problem that was

about prisms and after that we want to consider the reflection polarization. As we told now the proofing is easy. It's enough to we say that when the things beat to each other we'll have an energy. But we should speak about the subject that why we will have an energy at the beating time. Here we try to say classically and with the new theory. So we'll have:

$$E = \left(\frac{c}{\mu}\right).EB + mv = \int E_m(\omega t + sin\varphi).dE \qquad (1)$$

$$E = \left(\frac{c}{\mu}\right).EB + \frac{2mr\pi}{T} = \int E_m\left(2\pi\frac{t}{T} + sin\varphi\right).d\left(\frac{S\mu}{cB}\right) \propto \varphi \& E \,(2)$$

That here the (S) is the *poynting vector (electromag)* that this parameter is for the electromagnetisms wave like light and here because we couldn't take the light mass we must use from this vector for taking the light momentum or moving of that. The (E) here is for the electrical fields and B is for the magnetic fields. As you see in the equations 1&2 we have used from the wave equations because in fact we're working with the waves that one of them is the light and the other one is the wave that has made from the moving of the electron. As we know this *eq*:

$$E = \int E_m\left(2\pi\frac{t}{T} + sin\varphi\right).dE = \int E_m\left(\frac{x}{r} + sin\varphi\right).dE \qquad (3)$$

Is always correct. But sometimes maybe it is to changing about (φ) and (x & r) and this changing can make a difference between the E and $E_m$. It means that for example when a tap of light arrive to a mass and for example arrive to the third electrons level gives us an special energy but if also the x and r be to a

changing system it's possible to we have a special beating angle (φ) and a difference radius for the difference level circuit's. You can understand that here we had some changing which they caused to we'll the difference between the energies. So the energy that we were speaking about that, how to creating is to this way. We can write easily:

$$E \approx \left[\int E_{\text{m}}\left(\frac{x}{r} + sin\varphi\right) dE\right] + \delta E \qquad (4)$$

Now we want to extent this important subject to the polarization. For this we should have a picture of the light and polarization of that when is beating with the transparent matter, in our idea. We know that the light has many wave that the resultant of them has four main direct (up-right-down-left). So when a wave, like this wave or other electromagnetic waves when arrive to surface of the transparent or not transparent matters, they came with a special direct or in other word we consider a special direct. In fact a when a special ray with many directs of the energies beat to the surface of the matter (for example water) the matter if was a transparent matter wants to refract the all directs to a special angle and if again we comeback to the new theory about the energy of the levels in the atom that we have spoken about that, we can take the new subject from this theory to a method that the energies levels of electrons around the nucleus can mix to each other and they can during the mixing change the around conditions. For example in this subject that we're talking about that when the light for example is going down to water in a special angle the energy of the light can mix with the energies

levels of the electrons circuits in the atom and in this special angle the energies waves from to things can neutral each other. In the other word because the light has many wave and moving of the electrons of the matter (water) can make an energy so it's possible to the waves of energy mix to each other and neutral each other. We can proof this subject with the extra energy that will makes during the beating. The extra energy distribute to all surface of the matter and because all of the molecules in the surface and in deep of the matter has the electrons levels so in a special angle (that the light should radiate) we have the special distributed electromagnetisms waves of the Poynting vector so because we have an special energy it is possible to mix them from many molecules. So if we want to consider a special direct of the light we should consider which, that direct is mixing and refracting to water and we'll have that the other direct from two all direct is reflecting from the surface of the matter. In the other words in a special radiation angle all of the for example perpendicular directs aren't in the reflected ray and it means that there is less horizontal direct and much perpendicular direct in the refracted ray. So we infer that with all things (it is better if it will be a transparent matter because the light pass transparent matter but for the else it must change to the internal energy) we can get a polarized ray but in a special angle for each matter. We can get the angles with some easy formulas like Snell or Brewster. Now we write the equations about this subject:

$$E_{light} + E = E_{all} \tag{5}$$

$$E_{\text{light}} = \frac{S\mu}{cB} + 4 \int \omega t \cdot e^{-} \tag{6}$$

That at up we crossed number 4 to integral because we have four main direct and we got the $(\omega t. e^{-})$ integral because we should consider the energies levels in the atom system and we should add the $(\omega t)$ because is for turning the electron to calculating.