

Experimental evidence for the positron/electron sea

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It is proposed that the aether consists of a sea of positron/electron dipoles. This describes the experiments which already support this hypothesis.

The hypothesis explored in this paper is that the luminiferous aether which was proposed to be the medium for light waves actually exists and it consists of a sea of positron/electron dipoles which I will call poselectrons.

https://en.wikipedia.org/wiki/Luminiferous_aether

These are experiments that already demonstrate the existence of a material medium of positron/electron dipoles for light waves:

1. Pair production.

If there is a material medium for light waves and it is made out of positrons and electrons, then it is directly predicted that you should be able to separate the dipole with the sufficient application of energy and this is exactly what happens in the pair production experiment. We see with the application of sufficiently high energy gamma rays, that positron and electron pairs appear to sprout out of nowhere. This is exactly what we would predict would happen if we break apart the invisible dipole into its constituent parts. Mainstream expects us to believe that pair production happens as the result of energy being magically converted into positrons and electrons. How does this happen? There is absolutely no explanation – it is complete magic. Pair production is better explained by there being an invisible dipole particle which breaks up due to the input of energy. No magic or mysterious explanations are required. So pair production better supports the idea of there being a pre-existing dipole rather than creating matter from energy.

https://en.wikipedia.org/wiki/Pair_production

2. Pair production only happens in the presence of large atoms

The pair production experiment only works within the vicinity of a nucleus. If there is no nearby nucleus, then no pair production is observed. This is consistent with the idea that the poselectron is the particle that makes up the medium that gamma rays travel through as waves. As long as the poselectron has freedom of movement, it can propagate a wave of arbitrary energy including very high energy gamma rays. However, if the poselectron particle encounters a barrier like an atomic nucleus, it can no longer move back and forth without restriction and it will hold one part of the dipole in place which will allow the other part to be separated due to the collision. This is why we see the experimental result that pair production can only occur near a nucleus. There is no mainstream explanation for why this occurs. If pair production were just a matter of converting energy into new matter, then this should happen without the presence of a nearby nucleus. As long as the gamma ray has enough energy to create a particle, it should occur, but we do not observe this. Therefore, the requirement of a nearby nucleus is strong experimental evidence that there is a dipole particle that has to be ripped apart using the collision forces that occur when near a nucleus.

3. We never see individual electrons or positrons generated

Another significant piece of experimental evidence is that we never see individual electrons being ejected, they must always occur in a positron/electron pair coming from the same location, which is also evidence for the dipole. If it were just a matter of converting energy to matter, then why wouldn't you be able to create an individual electron with enough energy? There is no reason why you couldn't if energy converts to matter. But we never see this and there is

no explanation from the mainstream why we don't see individual electrons or positrons being generated. They must always be a pair which serves as strong experimental evidence that a dipole particle was being split.

4. $E = MC^2$ is due to positron/electron collisions

The opposite of pair production is when a positron and electron collide. Mainstream calls this process annihilation and it is presumed that the positron and electron are destroyed and completely converted into energy.

https://en.wikipedia.org/wiki/Electron%E2%80%93positron_annihilation

Mainstream never explains how something ponderable like an electron is magically converted into gamma rays. Instead of magic, it is much more plausible that the electron and positron collide and form a new neutral particle and that the energy of the collision is released to the environment. Whenever two masses collide into each other in an inelastic collision (they don't fly back apart), energy is released. This is what happens when you clap your hands and the kinetic energy of your hands is converted into sound waves which we hear as the "clap". If we consider the positron and electron are highly attracted to another and take on a near infinite force as they approach one another, it is plausible that they will take on the maximum possible velocity which would be the speed of light. If we simply calculate the kinetic energy of the electron and positron, we would find that kinetic energy $KE = 1/2mv^2$ with m being the mass of the electron and v being equal to c (speed of light). This means the KE of the electron would simply be $1/2mc^2$ and the KE of the positron would be $1/2mc^2$. The total KE of the pair would be $1/2mc^2 + 1/2mc^2 = mc^2$. In this way, we could see there is direct connection between the kinetic energy formula $KE = 1/2mv^2$ and $E = mc^2$. Unfortunately, this is still off by a factor of 2 since 2 photons are created with an energy of mc^2 for a total energy of $2mc^2$ for the total positron/electron collision. Adding up just the kinetic energies at the speed of light only accounts for one of the gamma rays emitted. So while the math doesn't work out exactly, it should still be

expected that the kinetic energy would be output during the collision. There may be other factors in play since the $1/2mv^2$ formula is usually only good for relatively low velocities, but relativistic kinetic energy would indicate the energy would go to infinity if the electron/positron were to get close to the speed of light. So something isn't right and there may be some undiscovered reason why this is off by a factor of 2. However, this is still a more intuitive explanation for where the energy comes from in a positron/electron collision. There isn't this amazing conversion of matter into energy, but rather a release of kinetic energy. When you clapped your hands, your hands didn't disappear did they?

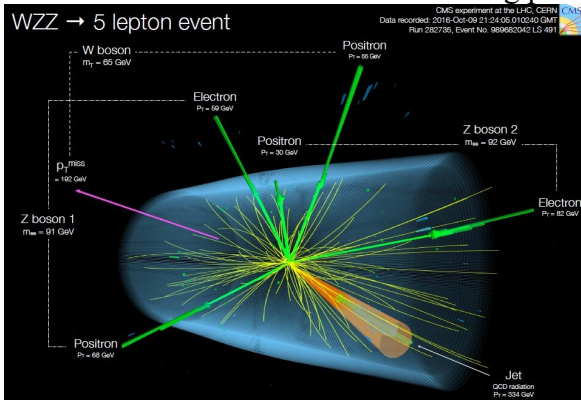
5. Collisions should produce more than mc^2 energy

If positrons and electrons were just being converted to energy in the collision, then I think we would expect to see some contribution to the escaping gamma rays energy from the kinetic energy, however we don't see that. Experimentally, we only see the amount of energy from theoretical conversion of the mass of the electron at .5 MeV for the lowest energies. But there should be more energy than this since the total energy should be the kinetic energy plus the energy from the mass conversion. So, we should never be able to observe only 1MeV total being created. The only way this could occur is if the positron and electron collided with no kinetic energy at all, but considering how strongly they would attract and accelerate towards each other, this seems highly unlikely. So, the amount of energy released is more likely due to the release of kinetic energy of the collision by the release of gamma rays than through a magical conversion of positrons and electrons into 2 gamma rays.

6. Positron/electron generation in collider experiments.

By far the greatest number of particles detected in such collider experiments are masses of positrons and electrons which cannot be accounted for from just the original constituents. This is another way of ripping electrons and positrons from their hiding place. This is another prediction showing that the components parts of the positron/electron dipole sea can be ejected and are directly viewable with sufficient energy. The

number of positrons always match up with the number of electrons which indicates a strong pairing.



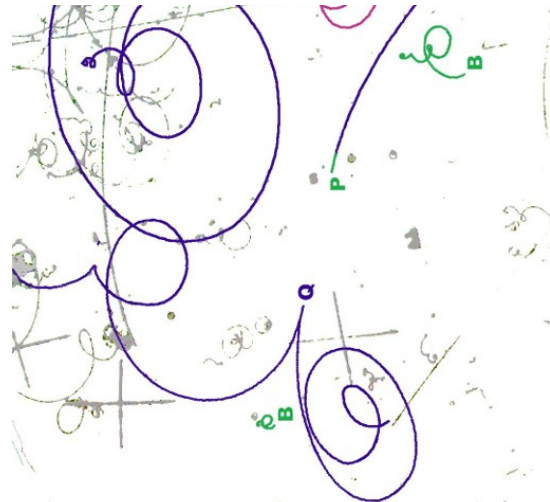
A typical collider event which produces mostly electron and positron tracks which are considered garbage and must be filtered out.

<https://www.nature.com/articles/s42005-021-00636-x.pdf>

7. Direct observation of neutral dipole particles.

If you look at enough pictures of atomic particle collisions, you will find instances where you see a positron and electron coming together and then they "disappear". A short distance later, you see a similar pair sprouting out of nowhere which have similar energy and trajectory. This is the exact signature of a "neutral" particle which would have to be a positron/electron dipole. This is the particle that mainstream says cannot exist, but does clearly exist in the existing evidence.

https://hst-ar-chive.web.cern.ch/archiv/HST2005/bubble_chambers/BCwebsite/articles/05.pdf



This article appears to have caught one of these events in a bubble chamber picture. At the point labeled "P", there is a positron track which abruptly ends. It is presumed that it has collided with an electron and annihilated. But then it reappears at point Q as a positron and electron. The article indicates that this is due to gamma rays being created at point P and causing pair production at point Q. While this is certainly possible, it is also possible this is showing that a neutral poselectron particle was created at point P and it was torn apart at point Q. Certainly more analysis would need to be done and to find other examples, but this is exactly what it would look like.

8. The Lamb Shift.

The theory of quantum electrodynamics says that the vacuum isn't empty. They say it is filled with a sea of virtual particles which are constantly appearing and disappearing. This goes by several names such as "quantum foam" or "vacuum energy".

https://en.wikipedia.org/wiki/Virtual_particle
https://en.wikipedia.org/wiki/Quantum_foam
https://en.wikipedia.org/wiki/Vacuum_energy

The bottom line is that mainstream believes in a type of aether and many experiments point to the vacuum being a very active entity filled with particles. This is compatible with the idea that a physical aether like a poselectron sea could exist.

These particles have the effect of perturbing real particles and one of the examples of this is called the Lamb shift. In order to explain the tiny shifts in the hydrogen spectra observed in the Lamb Shift experiment, it is required that there be a sea of virtual parti-

cles that the electron is travelling through in order to account for this type of shift. However, these particles might not need to be virtual. Instead, they could be a real sea of charges that is causing the Lamb shift. This could be direct evidence for material medium consisting of charges which is omnipresent.

9. The speed of light.

The idea that space is composed of positrons and electrons is not new and has been investigated in detail by many people. Two specific examples are the EPOLA theory which says that space is a crystalline lattice of positron/electrons like salt (NaCl).

https://www.epola.co.uk/epola_org/index.html#major

In point 6 and 7 of this article, if one assumes that space is like salt, you can calculate the wave propagation speed based on binding energy as 3.6km/s. If you substitute the binding energy for the positron/electron pair, you get a wave propagation equal to the observed speed of light. So this supports the idea that the speed of light is not some arbitrary constant, but is a direct result of the medium being composed of positrons and electrons with a specific binding energy.

Another example is the dual-space theory which says that space is filled with a positron/electron dipole.

<https://web.archive.org/web/20060617130345/http://www.dualspace.net/uploads/Permittivity1.doc>

This paper calculates a specific size for the dipole and the density based upon the binding energy of the positron and electron. According to point 15 of the article, the permittivity and bulk modulus can be calculated to determine the wave propagation speed which also ends up being the observed speed of light.

So, both of these theories which approach the positron/electron sea in very different ways, get the same answer that the predicted speed of light in a positron/electron sea would be equal to c based upon their binding energy characteristics. This is strong evidence explaining why the speed of light is what it is and that a positron/electron sea is the most likely candidate for a medium for light waves.

10. Neutral particles are very hard to detect

Whatever the aether particle is, it is exceedingly hard to detect. Otherwise we would have detected it by now. Experimentally, neutral particles are exceedingly hard to detect. It is likely that the poselectron particle is actually the same thing that we currently recognize as a “neutron”. We know that neutrons normally don’t show up in any of our detectors because we can only “see” a particle by the way it interacts with other matter by using its charge. Since neutrons have little to no charge, it doesn’t interact with matter in a way that we can directly see it. Neutrons interact so weakly, that they can pass through several feet of concrete. So if we were looking for a very hard to detect particle, a neutron would fit the bill. Neutrons are said to decay in about 10 minutes, but this is only outside the bonds of the nucleus. When bound in the nucleus, it normally doesn’t decay and this would also have to be the case for the poselectron sea.

11. Neutron decay half-life is variable

One of the ways we can detect a neutron is if it decays and gives off a proton and electron and antineutrino. Why is this and why it stable inside an atom? Normally, we only see neutrons as the result of high energy decay processes like nuclear fission. The neutrons are ejected with a great deal of kinetic energy and it is bound to collide with something else. So, the reason why neutrons are not stable outside of the atom is because they have a lot of kinetic energy. An interesting prediction would be that if you were to slow a neutron to a dead stop, it wouldn’t decay. This may be the reason behind the experimental observation that the half life of a neutron seems to have different values depending on how you measure it. A couple of neutrons that disappear into the poselectron sea could throw off the half life calculation considerably. So, this anomaly hints that the poselectron particle is in fact the neutron.

<https://www.mdpi.com/2073-8994/16/8/956>

This article notes a significant difference in neutron decay times in bottle versus beam type experiments.

12. Neutron decay is a neutron hitting a poselectron

Another question about neutron decay is why it becomes a proton/electron/antineutrino. If a neutron is just a positron/electron dipole, then how can it become something that seems much larger like a proton? This can happen if you think that the high energy neutron collides and reacts with a particle of the poselectron sea. The neutron has 1 positron and 1 electron and the poselectron also has 1 positron and 1 electron. If you add this up, this means you have 2 positrons and 2 electrons. The simplest composition for a proton would just be 2 positrons and 1 electron. This leaves it with a net 1 positive charge. Mainstream doesn't recognize it and prefers to play with fractionally charged quarks, but this is much simpler and therefore superior. So, the collision process creates 1 proton and what is left? There is one electron left over. This neatly explains why a proton and an electron result in a neutron decay. Any excess energy is carried by the antineutrino. The experimental observations of the decay products of a neutron support the idea that the neutron and the poselectron particle are the same particle and that the poselectron particle fills all of space so that high energy neutrons can collide with them.

13. Observation of permittivity

If space is filled with material particles, we would expect that it would have the same kind of properties as other materials. One of these properties is permittivity which is a measure of how much charge can be stored in a material. Materials with high permittivity have dipole properties that allow them to align and polarize with the electric field. For example, water has a very high permittivity due to the highly polar nature of the oxygen atom creating a very positive end and the two hydrogens creating a negative end. This points to the source of permittivity as coming from dipole particles. Since the vacuum has this property (it is arbitrarily set to 1 by definition), this stands as evidence that space also has this dipole property.

<https://en.wikipedia.org/wiki/Permittivity>

This article has a diagram showing how dipole particles assist in defining permittivity.

14. Observation of magnetism as dipoles

One of the great unsolved mysteries is how the magnetic field works. Experimentally, we observe that it has dipole properties of North/South and we have never observed a magnetic monopole. No matter how we cut up a magnet, we get a magnetic dipole. One of the only ways this can happen is if the magnetic field were mediated by dipoles. The dipole would have an axis that could determine magnetic field direction and the number of dipoles pointing in the same direction could determine the magnitude of the magnetic field. In this case, it would be dipoles all the way down to the subatomic level of poselectron dipole sea. So, the observation that magnetic fields are dipoles and such fields exist in seemingly empty space, supports the idea that space is not empty, but consists of dipoles which are mediating the existence of the magnetic field. This concept is explained in more detail in this paper:

<https://franklinhu.com/HowMagneticFieldWorks.pdf>

This explains that the magnetic field is just a polarization of the poselectron sea and electrons are deflected by this polarization in what we observe as the magnetic force.

Additional references

This work is part of my Theory of Everything which links virtually all the forces as being electrostatic and mediated by the poselectron sea.

<http://franklinhu.com/theory.html>

I welcome your comments. Please send them to

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