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QMEPC Discovery of Light's Medium Explains Why Gravity Is Larger and Weaker

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ABSTRACT

The MEPC – The Magnetic Electron Plasma Cloud – is plasma solely composed of electrons that is the source and recipient of electrons that exist outside of the atom. The ramifications of this are nothing short of phenomenal, because it not only explains where electrons come from and how they are available for distribution around the atomic nucleus, but it also explains:

- What occupies the space in between the atoms?
- The existence of a hierarchy of forces surrounding the atomic core,
- Why gravity is larger and weaker than the other known forces,
- What the medium of light is,
- Why light is both a particle and a wave, and
- What dark matter and dark energy are?

INTRODUCTION

Furthermore, the MEPC makes logical sense of the quirkiness of quantum mechanics and the progression of time and space, because it explains the composition and connection of everything. It even gives an insight into the makeup of the atomic nucleus itself ^[1].

It is common knowledge that the space that surrounds us and that separates us from each other and other things here on earth is composed of air molecules that are made up of even smaller atoms. Atoms are composed of a nucleus of positively charged protons and sometimes neutrons with no charge that are surrounded by the smallest if not the most minute, subatomic atomic component particles, negatively charged electrons. Electrons that surround the nucleus in tightly organized cloud shell spaces in which their quantities match the number of protons in the atomic nucleus.

The electrons needed for the atomic shell's cloud space that immediately surround the nucleus come from somewhere outside of the atomic shell. This outer space is also, where electrons go to when they are no longer in the atomic shell's cloud space. An outer space abundant with electrons that remain in close proximity to the atoms to be readily available to provide requisite electrons or receive them as needed. This means that in addition to the cloud of electrons that immediately surrounds the atomic nucleus, there is also an ever-present expanse of seemingly endless space with a seemingly endless supply of random electrons that remains in close proximity to any atom to provide and receive the necessary or excess electrons.

This ubiquitous outer space cloud of electrons is referred to herein as the Magnetic Electron Plasma Cloud (MEPC). It is a cloud solely composed of negatively charged electrons that exist as plasma, ^[2] which is a state of matter where there are a sizeable number of charged particles that behave in a collective way because of attractive and repelling electric forces. In the case of the MEPC, it is solely composed of electrons that exist outside of the atomic cloud's shell space that is both the source and recipient of all electrons. Electrons that are all indistinguishable from one another, all moving around at the same speed

(presumably the speed of light), and they are all being simultaneously drawn like bugs to a light by the positively charged atomic nuclei demanding electrons for their atomic structural sustenance.

THE HIERARCHY OF FORCES

Both the atomic cloud's shell space that immediately surrounds the atomic core and the outer space of the Magnetic Electron Plasma Cloud (the MEPC) are made up of minute negatively charged electrons that are indistinguishable from one another, all possess the same mass, and are all moving at the same speed. Consequently, they all possess the same momentum and energy, and because they all have the same charge – they are all equally repelling one another – equally and continuously pushing off of one another.

So along with the atomic nucleus core's pull, there is also a repelling push coming from the electrons of the MEPC that combine too simultaneously and instantaneously fulfill the electrons needed for atomic cloud shell spaces.

Additionally, the outer cloud electrons of the MEPC are exerting equal negative pressure on the electrons that get into the designated shell spaces. This external negative pressure also provides a containment pressure that simultaneously holds these electrons in their designated core shell places (at least temporarily).

It is important to understand that these are not static atomic events. They are dynamic subatomic, continuously flowing processes that establish and maintain a stable atomic structure within and around the atomic core – a process preserved and driven by the MEPC. Consequentially, the co-fulfillment of the electron clouds surrounding the atomic core generates a seemingly static atomic structure sustained by a continuous flow of electrons of the MEPC that are being drawn in, properly configured, pushed through, and back out into the MEPC. A push whose magnitude is driven by the immense and continuous repulsive negative pressure coming from the mass of mutually negatively charged electrons of the MEPC that is combined with the constant pull of the atomic core.

Meanwhile, once the requisite shells are instantaneously filled by the combined attraction of the core with the repressive containment pressure of the MEPC, these successfully configured and compacted shell electrons are not only being contained in their designated shell spaces – but they too instantaneously repel and prevent the flow of any other oncoming exterior electrons from entering their shell spaces. This repulsive field establishes an external subatomic atmospheric casing around the atom. This is similar to earth's stratosphere that provides an ozone layer that shields the planet from harmful radiation and atmospheric particles while providing a stable planetary troposphere^[3]. However, on the atomic scale this is an electron cloud casing where the electrons of the MEPC are engaged in the nucleus' push/pull co-fulfillment process that is providing the required core with electrons while shielding the atom from other incoming electrons and other subatomic particles thereby maintaining a stable atomic environment.

The containment of the atomic protons and neutrons inside the atomic core is referred to in physics as – the strong force^[4]. This force holds the core of the predominately positively charged particles tightly together. The fulfillment and containment of the electrons in the atomic cloud shell spaces that immediately surround the core are referred to in physics as – the electromagnetic force^[5]. This force surrounds the atomic core that is usually larger and weaker than the strong force. Working in tandem, the two forces are in a continuous electromagnetic/strong force, push/pull process that create and maintain the structure of the atom.

Beginning with the smallest atom, hydrogen, it has one core proton in its nucleus and one electron in its cloud shell space. These quantities then get proportionately larger as the elements grow progressively larger, based on the quantity of protons in the core. Extremely large elements can have a hundred or more protons and neutrons, which in turn draw in a complementary number of electrons to fulfill the varying shells.

However, along with the electrons in the shell's spaces that are being drawn in by the core's strong force, which are progressively growing in size in complement to the size of the atomic nucleus – so too does the core's strong force. The size and strength of the strong force continues to increase proportionally with the size of the atom's core until it reaches an optimal size when the nucleus is around the size of an iron atom^[6]. From this point on, as the atomic nucleus gets larger, the strong force continues to increase in size and to draw in matching quantities of required electrons – but at decreasing field strength. This continues until the atomic nuclei along with its continued accumulation of electrons from the MEPC reaches a sufficient size to where the buildup of the electromagnetic force, which up to this point has been the electron containment force, is large enough that it then exerts a negative pressure equal to, or greater than, that of the atomic nuclei's strong positive pull force. At this point, rather than the electromagnetic force containing the electrons in their outer shells, it then overpowers the exterior weaker outlying shell forces. Under the right circumstances, electrons in the outer shells break off and force the atom into a smaller and more stable size and attracting force. In physics, this breakaway force is known as – the weak force^[7] – and the radiation given up is known as beta decay^[8].

The weak force not only causes the deterioration of larger atoms, but it also places a cap on the maximum size and ability to generate newer, larger elements. To date, this appears to be around the size of element 118, Ununoctium^[9]. Therefore, the weak force is a consequence of the simultaneous push/pull process that is going on within the MEPC between the electromagnetic and strong containment forces that for extremely large particles becomes a destructive and limiting force.

This dynamic electromagnetic/strong, push/pull, force process with its accompanying electromagnetic fields, is taking place around all atomic particles. So, whenever there are two atoms of the same element, the pull force of the atom's core strong force is doubled, as too is the complementary push force of the MEPC along with the like number of electrons, which is tripled when there are three atoms. This multiple increase of the push/pull atomic forces continues to grow based on the quantity of atomic particles amassed, similar to the multiplication effect of the increasing size of the atomic core, except this is for multiple atoms of the same core size, so it does not have the weak force cap on it. This then allows the possibility of amassing relatively large quantities of atomic elements far beyond the atomic scale, generating particles large enough to be visible to the human eye.

The MEPC also explains the generation of electromagnetic fields. Even though electrons are indistinguishable from one another, they possess different attributes like spin ^[10], direction, and perhaps other alignment or configuration characteristics, that are requisite for the fulfillment of the designated shell cloud spaces within the atom's structural framework. Whether this required spin, direction, and perhaps other alignment or configuration characteristics are something randomly occurring in the MEPC where the electromagnetic/strong forces' push/pull process filters out the desirable electron types. Or more likely, the flow process itself causes the spin, direction and the other requisite characteristics. Regardless, a configuration occurs both prior to entering into the atom's cloud shell spaces and after they are rushed back into the MEPC. This fulfillment process generates a recirculation pattern, like airplanes doing touch-and-goes around an airport or particles in the water circulating around an eddy in a pound. Most likely, because of their proper configuration characteristics, they are again drawn back around and used as part of the more tightly contained fulfillment process of the atomic cloud's shell spaces. Consequently, it is this recirculation eddy around the outside of the atomic cloud's shell spaces, within the MEPC, that explains the generation of electromagnetic fields just outside of the atom that are created for each atomic particle. This is also, why an increase in electron flow generates larger electromagnetic fields and the restriction of an electromagnetic field forces generates an increase in the flow of free electrons. So in addition to the tightly packed electron cloud that occurs on the atomic scale immediately inside of the atom's boundaries that surrounds the atomic core, there exists another fractal, larger, less dense alignment of electrons flowing in electromagnetic fields that occur within the MEPC immediately surrounding the exterior of the atomic boundaries of all atomic particles.

Because the MEPC is solely composed of electrons that are always repelling and pushing off of each other to include the electrons in the atomic shell that surround all atomic particles, there exists a persistent external pressure, from the MEPC, that continually surrounds all particles. An inward pressing – centripetal, containment pressure – surrounding and constantly pushing in on all substances over and above the electromagnetic force where the MEPC is also generating and supplying electrons for the fulfillment and containment of the atomic cloud shell spaces.

This constant MEPC centripetal containment pressure, that exists over and above the electromagnetic force, exists everywhere except: (a) inside of the atom, because this is where the more powerful strong force dominates, (b) around the periphery of the atom where the electromagnetic force and its more tightly compacted electrons in its atom's electron shells are resisting the pressure of the MEPC and repelling away the unsuccessful incoming electrons, and (c) in between atoms that are in close proximity to one another, where the close proximity of their electromagnetic fields prevents the MEPC's centripetal force from occurring. The prevention of the MEPC's centripetal force between atoms that are in close proximity to one another creates centripetal force voids. These are low-pressure areas occurring between accumulated particles that then allow the surrounding MEPC's centripetal force to make them more tightly compacted together.

For clusters of macro (or mass) particles that form substances (masses of two or more atomic particles), the external MEPC centripetal force that is exerting pressure on all sides of all atomic particles combined with the areas of low pressure in between the particles, due to their close proximity to one another, creates an unavoidable clustering that forces and sweeps atomic particles together. This necessarily makes the cluster of atoms tightly compacted without changing their atomic makeup that is being controlled by their more powerful internal electromagnetic/strong forces. Consequently, the constant external MEPC centripetal force combined with its low pressure areas occurring in between mass particles not only allows solid, like kind, substance crystallization but also the amassing of dissimilar elements.

This amassing of dissimilar elements then creates an inevitable sharing and flow of electrons in the outer shells of substances with other dissimilar yet compatible electron sharing capabilities. This produces both macro (mass) substances and molecules, along with the accumulation and generation of electron flows through and between electron sharing atomic particles, where the strength of their atomic or molecular sharing capabilities determines their cohesive strength. Moreover, this flow of electrons between atoms and molecules on a macro mass substance scale is the generation of electricity.

Likewise, this ever-present MEPC centripetal force that is amassing like kind and compatible electron sharing particles is also amassing substances of dissimilar elements, whether they participate in electron valence sharing or not, but the cohesiveness of the amassed substances is reduced without the outer shell electron sharing capability. Thus, it not only brings about the creation of molecular compounds but it also results in the clustering and amassing of all substances, with varying degrees of cohesive bonding strengths. This ever present, MEPC centripetal force that surrounds all mass substances that not only pushes, sweeps, and holds like kind, and electron sharing compatible elements and molecular compounds together, but also dissimilar mass substances together is what is known in physics as – gravity.

Therefore, gravity is a sequential, fractal, mass substance, containment force – that surrounds all macro substances of two or more atoms. It is consequentially larger, and weaker than its amassed atomic component particles, each with their internal smaller and stronger atomic electromagnetic and strong forces that are keeping their amassed particle's nuclei and electron shell spaces intact. Accordingly, this makes gravity a larger and weaker containment force that assembles large quantities of dissimilar substances that both holds substances together and still allows them to be readily separable and movable.

So gravity should be viewed as a macro, centripetal, containment force occurring around all mass substances of two or more atomic particles. It is an outcome effect of the internal atomic attracting forces (electromagnetic and strong) combined with an even larger MEPC centripetal containment force. A substance containment force that clusters macro, mass substances together, along with the generation of mass substance electron flows within an inevitable and fundamentally necessary hierarchy of forces.

Consequently, this makes the MEPC a quantum mechanical explanation of classical physics' gravity along with a further confirmation of Einstein's theory of relativity. The MEPC is a quantum mechanics' Dirac Sea ^[11] with a variation of outcomes that is solely composed of electrons that are a fundamental element of all atomic matter. Therefore, the MEPC must exist anywhere and everywhere atoms exist throughout the universe.

In classical physics, Newton's law of gravity was thought flawed ^[12] because it did not explain how one thing could act on another instantly, across any distance, with nothing in between. The MEPC is the missing link, because it is a plasma substance with an internal pressure gradient that exists between everything. It is the missing push component of gravity. It is ever-present plasma that generates a fractal containment pressure gradient between all particles and substances, large and small, throughout the universe. Thus, the MEPC is a colossal, fractal, magnetically charged, pressurized gradient that generates, governs, and responds on multi-levels, instantaneously to micro and macro pressure variations within it.

Einstein's contribution to gravity ^[13] was to reconcile it with relativity by recognizing space-time as a dynamic entity distorted by matter. Einstein's theory of general relativity is that gravity is a property of space-time geometry, where gravity is a distortion of space-time. According to the MEPC, this is mass substance space-time geometry, in which, Newton's theory of gravity is merely a terrestrial subclass of Einstein's theory of general relativity, where certain distortions of space-time change straight lines into parabolas of falling bodies or the closed paths of orbiting planets. Einstein's space is as a continuous three-dimensional fabric that a body warps according to its mass, the more massive the body, the deeper the warp.

In Einstein's view ^[14], masses do not exert gravitational force on other masses; instead, there are space-time distortions where space-time in the presence of a mass is curved. Just as there are no straight lines on the surface of a sphere, the notion of a straight line in a curved space-time is what mathematicians call a geodesic (a space-time line that is as straight as possible). So small particles near a massive sphere follow warped space-time geodesics, which send them plunging toward the mass, into an orbit around it, or on a deviated path around it. Gravity does not deflect these particles from their straight lines. It redefines what it means to move in the straightest possible way.

The MEPC also does not see gravity as a force that masses exert on one another, but that gravity is part of an inevitable, fundamentally necessary, fractal, hierarchy of forces that evolves from the creation of atomic particles within plasma of magnetically charged electrons. Electrons of the MEPC that due to their magnetic charge and collective overwhelming mass generate a centripetal pressure gradient that permeates and surrounds everything within it, which in turn spawns and governs the coagulation and development of all mater.

This process begins with the positive attraction of the atomic nucleus that then coupled with the MEPC's centripetal force creates a fractal evolution of particles that builds to macro mass substances. Substances that are not only surrounded by the MEPC's centripetal force but also their own fractal internally generated magnetic fields. A hierarchy of magnetic fields that vary in magnitude based on the scale of the particles and substances that they surround. These fractal levels of internally generated particles and magnetic fields not only attract, but also repel other particles – governed by pressure's law of least resistance and the size and proximity of mass events that regulates the direction of motion.

So within the MEPC, there is a coagulation process that generates a fractal, multilevel hierarchy of particles and substances along with a hierarchy of magnetic fields that surrounds all substances. Consequently, it is this hierarchy of magnetic fields that is where and why there can be a warped three-dimensional fabric of space in accordance with Einstein's theory of general relativity. Where, proximity and pressure's law of least resistance governs space, time and direction of flow.

Furthermore, because the MEPC deals solely in the realm of subatomic electron particles that are so minutely small that are not readily measurable with worldly devices, they exist in a subatomic realm with no earthly features or distinguishing dimensional references of space, direction, or time. Where, electron particles only recognize and respond to the wobbles of the electrons beside them requiring them to wobble in kind. Negatively charged quanta of energy that are all oscillating in close proximity to one another, presumably all moving in the same direction, at the same speed, which means that relatively to one another, they are not moving at all (other than wobbling). So on a subatomic scale, not only is space warped but on a scale that is so minuscule that the concept of a worldly four dimensional space-time is irrelevant with subatomic dimensions being simply charge, spin, and perhaps other characteristics like wobble or superstring dimensions.

On the other hand, Einstein's general and special theory of relativity deal with celestial bodies that address magnitudes of the universe so immense, they too are beyond the limits of worldly four-dimensional space-time. This is a space so vast that straight paths warp relative to the magnitudes of volumes and masses.

Where, time is relative to the speed at which the traveler is moving. And, where Newtonian physics is but a

Terrestrial subset of general relativity, in which straight lines can run parallel to each other, vertical angles are measured plumb to a planet's surface, distance is measured in meters (or other equivalences) instead of light years, and where Einstein's relativity corrections are so small that they are deemed insignificant.

Within the MEPC, plasmatic pressure and its law of least resistance generate particles. On the atomic scale, the push/pull process of the electromagnetic/strong forces weaken as the nucleus grows in size to create the weak force that causes beta decay and puts a cap on the size of atomic particles. However, on the macro mass particle scale the weakening of the electromagnetic/strong force's attractive strength is replaced by the MEPC's centripetal force of gravity that then dominates the process regulated by its internally generated low-pressure areas. This not only causes and governs macro mass substance matter coagulations and formation, but it also determines a substance's material states as a solid, a liquid, or a gas.

On a mass substances scale, electricity is the free flow of electrons through substances between and around atomic particles. Heat is the transfer of energy between two objects due to temperature differences ^[15]. More specifically heat on a macro scale is the rapid flow of particles between substances ^[16] that on an atomic scale is the rapid flow of electrons. Temperature on the other hand is the detection and measurement of a substance's kinetic state ^[16] that per the MEPC varies with a substance's internal and threshold pressures, which in combination with the force of gravity regulates the internal pressure of a substance that in turn determines its material state.

This is because internal substance pressures are based on the atomic structure's components that regulate the substance's electron flow rate (heat) that is flowing in between the atomic particles that are in close proximity to each other. This electron flow between a substance's particles creates an electromagnetic flow resistance to the surrounding compaction force of gravity. So the varying degree of substances' mass particle electron flow rates, in between macro mass particles, combined with the MEPC's constant centripetal force of gravity to cause an ongoing macro mass substance balance between external gravitational compaction and internal electromagnetic flow resistance. The internal electron flow rate determines the amount of resistance that a substance has to offset the compacting force of gravity that in turn determines a substance's compactness, and consequently its material state.

Therefore, the internal pressure flow rate regulates the magnitude of the low-pressure areas (or lack thereof) between atomic particles that are in close proximity to one another. The greater the electron flow rate (heat) in between the particles the greater the internal pressure causing a greater separation of particles that prevents their close proximity to one another, resulting in a gaseous state. In contrast, when there is a low electron flow rate (less heat) there are greater areas of low-pressure resulting in lower internal resistance to MEPC gravitational compaction, resulting in a solid material state. Furthermore, the lower a material's temperature the lower is its electron flow rate and subsequent resistance, thus the greater is its conductivity.

Consequently, every substance based on its component's, atomic structure has varying threshold pressures, electron flow capabilities, and subsequently, mandatory electron flow rates needed to maintain or cause a change in a substance's material state. This explains the apparent disconnect between heat (the flow of electron particles) and temperature (the pressure measurement of a substance's state). So this is why copious amounts of heat (the rapid flow of electrons) are sometimes needed in order to change a substance's state (its internal pressure) from a solid state to a liquid state or from a liquid state to a gaseous state. Moreover, the regulation of heat flow being dependent upon pressure also explains why heat always flows from a higher temperature (a higher pressure) to a lower temperature (a lower pressure) because the MEPC is regulated by its pressure's law of least resistance where electrons are always flowing from higher pressures to lower pressures ^[17].

Thus far, beginning at the atomic core there is the strong force that is the containment force of the proton and neutron in the atomic nucleus. In turn, it draws in requisite electrons from the MEPC, which generates a larger but still weaker electromagnetic containment force. This electromagnetic containment force holds the electrons in their designated shell spaces and resists the MEPC's centripetal containment force that also holds away all other incoming electrons. Then, as atomic nuclei increase in size so too does the electromagnetic force until it reaches a point where it overcomes the progressively weakening core's strong field force. This creates another containment force, the weak force, which sets an upper limit on the size of the atomic nuclei. All of which is surrounded by an even larger, constant, and still yet weaker centripetal containment force of gravity that sweeps and holds large amounts and varieties of macro mass substances together – in an inevitable, fundamentally necessary, fractal, hierarchy of forces.

Accordingly, along with the increased size and complexity that comes with the gravitational production of mass substances is an even larger aggregation of electrons from the MEPC that surrounds mass substances, like bees around a hive. This is similar to the electromagnetic fields that surround all elements but on a larger magnitude of scale for mass substances. These even larger external accumulations of electrons that amass around substances manifest themselves as even larger and weaker mass substance gravitational fields.

Furthermore, this fractal development of substances and accompanying electromagnetic and gravitational forces is replicated again on an even larger magnitude of scale for an even larger and still weaker planetary gravitational containment of objects around stars that creates solar systems. This in turn is replicated on an even larger and relatively weaker scale containing galaxies that is replicated on an even larger and relatively weaker scale containing galactic clusters. Accordingly, this should be replicated again on an even larger and relatively weaker scale – that contains the universe.

THE CLUMPINESS OF THE UNIVERSE

With the knowledge of the MEPC's fractal development of particles that begins with the atomic nuclei that are scattered throughout the universe that coagulate to build galactic clusters, the clumpiness of the universe should make logical sense. What would be abnormal within the MEPC would be if there were not multitudes of fractal conglomerations with unique but similar clusterings of matter ^[18].

LIGHT

Moreover, the electromagnetic fulfillment and maintenance of atomic elements – is also the explanation of light. What it is and why it is sometimes a wave without a mass and at other times a photon particle. To Max Planck, and Albert Einstein, light is the smallest indivisible particle that can exist. It comes in minute quanta that Einstein used in his explanation of The Photoelectric Effect ^[19] for which he received a Nobel Prize. Later this minutely small quanta particle was dubbed a photon ^[20]. According to the photon theory of light ^[21], photons move at a constant velocity, the speed of light 2.9979×10^8 m/s or 186,282 miles per second in free space ^[22], carry energy and momentum with an electromagnetic frequency and wavelength, cannot decay on their own, but they can be destroyed or created when radiation is absorbed or emitted. Photons can transfer energy with other particles, can have particle-like interactions with electrons and other particles, and according to the Standard Model ^[23], have a spin of -1 that is parallel to their direction of travel.

So if light is a photon as Planck and Einstein believed ^[24], perceived as the smallest indivisible particle, then for us or anyone to see by something that minutely small, it means that we are not seeing things by a single photon coming at us one photon at a time. In fact, for us to see anything, by something that minutely small, we would have to be seeing by streams of them coming from whatever is picked up by our eyes, our visual receptors. Furthermore, to see things in color, they would have to be coming at us in varying wave frequencies and amplitudes – trillions upon trillions of them, just from the paper in front of us. The space between us and the paper and our desk or table would have to be filled with photons. Never mind what is coming from the door across the room and everything else in the room. If we were outside, the photons would have to be coming not only from a nearby tree and the grass and ground surrounding us, but also from across the driveway, including the driveway, and from across the street, and from all of the buildings across the street. Looking up to the sky, they would have to be coming from the clouds and the sky, along with the moon and the planets, the sun, the stars, and even from distant galaxies. This means that photons would not only have to fill the earth's atmosphere, but also the universe. Moreover, what sort of effect does all of these photons coming at us, have on us? Furthermore, where do they all go after coming to us?

On the other hand, the prevailing contemporary thought is that light is a massless wave of electromagnetic radiation that transfers energy through space in wavelengths ranging from infrared at one end of the spectrum to ultraviolet at the other end, with visible light being a narrow band in the middle from 400 to 700 nm (nanometers) ^[25]. James Clerk Maxwell, Heinrich Hertz, Thomas Young, and others have developed this wave concept of light with elaborate theories, experiments, and mathematics ^[26].

However, if light is a wave, a wave is a repetitive disturbance that travels through a medium from one location to another location ^[27]. A wave is a disturbance, an event that occurs in a medium – it is an action – not a thing. The thing for waves is the medium that their disturbance waves travel through, like air is the medium for sound, water for ocean waves, and a guitar strings along with air for music. What is the repetitive disturbance medium for propagating light? What medium is light traveling through? How does it travel through vacuums in labs and outer space? Moreover, if it is massless, how can it have any of its known electromagnetic interactions and effects with atomic elements?

But with the understanding of the MEPC, the Magnetic Electron Plasma Cloud, along with a nomenclature clarification of Plank's and Einstein's quantum particle, it all makes sense. Instead of calling Plank's and Einstein's smallest indivisible particle a photon, it needs to be recognized as an electron. Because they are both supposedly the smallest indivisible fundamental particles that are all traveling at the same speed, the speed of light, that are all indistinguishable from one another and, therefore, from each other.

With this photon nomenclature clarification and the knowledge of the MEPC's electromagnetic co-fulfillment of the atomic shell space process (described above), it is possible to clarify how the photon theory of light and the wave theory of light are compatible. This is because the repulsive nature of the electromagnetic force that successfully fulfills the atomic cloud's shell with electrons, which then hold away all other incoming electrons of the MEPC, is also what is creating the experience of light. By repulsing away all other incoming electrons – it creates a disturbance – which generates a repelled ripple wave that reverberates back throughout the MEPC. So light waves are rhythmic reverberation waves created by a disturbance event of the electrons

within the MEPC that are being drawn to a particle and then subsequently rejected away, creating a repercussion wave within the mass of electrons (or photons) of the MEPC. This means that the Magnetic Electron Plasma Cloud, the MEPC, composed solely of electrons (or photons), is also the medium for the propagation of rhythmic reverberation light waves.

Because this is not a static event, but a continuous, dynamic flowing process where the characteristics of the atomic nucleus not only determines the quantity and characteristics of the electrons that are being drawn into the atomic cloud's shell spaces, but it also determines the characteristics of the repulsion reverberation waves. These rejection reverberation waves are just like sonar or the waves that occur around a rock in a pond (a pond of electrons) – where the reverberation wave's characteristics are being determined by the size and characteristics of the substances causing the repelling disturbance.

As mentioned above, not only do the electrons of the MEPC need to be in close proximity to all particles throughout the universe for the atomic shell structural maintenance, but also for us to be able to see anything around us, it has to exist between us and everything visible. It has to exist not only in the atmosphere between us and any and every event, but also throughout the solar system, between us and distant stars, and even distant galaxies. This means that in order for anything in the universe to be visible or for anything in the universe to exist as a particle, the MEPC, the Magnetic Electron Plasma Cloud, must exist anywhere, everywhere, and everywhere in between everything throughout the universe.

So, what we experience as light are repercussion waves reverberating within the MEPC that have the ability to pass continuously through one another – at the speed of light (which is the speed that waves travel through the MEPC) – coming from any and every object or event encountered anywhere. So the visual effect that the waves have on us or any other object is dependent on the sensitivity of our receptors and the magnitude and proximity of the disturbance event being sensed. The overwhelming majority of the oncoming waves of electrons are duly repulsed away creating our very own reverberation disturbance waves that are also sent and sensed throughout the MEPC and, therefore, the universe.

THE INTERFACE OF LIGHT AND THE FORCES

We also now know that along with the generation of the rejection reverberation waves, comes the primary demand and fulfillment process of the atomic cloud's shell space of all particles. The receiving objects, regardless of their ability to sense the waves, are receiving their required electrons for their atomic shell space maintenance, along with generating their reverberation disturbance waves back into the MEPC for all to see and feel in perpetuity.

Depending on the characteristics of the approaching reverberation waves, they either have little or no effect on the receiving substances or are subsequently repelled away. However, a limited amount with the right amplitude, frequency, spin, and perhaps other characteristics flow into the atomic cloud's shell spaces, where they become a part of the atomic particle's ongoing maintenance that pushes the previously accepted atomic cloud shell electrons through and back into the MEPC's recirculating electromagnetic fields. In some cases, the incoming waves can be of such an energy state, magnitude, frequency, and intensity that they can alter the receiving substance's atomic structure. This causes not only the Photoelectric Effect where light waves of the right frequency can force the emission of a material's electrons, but also under the right circumstances, where the energy in the form of heat (the rapid flow of electrons) can change the characteristics of the atomic element, thereby creating a new element.

However, (as described above in the generation of gravity) heat in combination with gravity that is not of the right amplitude, frequency, and intensity to cause changes in a particle's atomic structure, does determine the electron flow rate of a substance. This in turn regulates the internal pressure of a substance that determines its material state as a solid, a liquid, or a gas.

DARK MATTER AND DARK ENERGY

On top of all this and in spite of the fact that the MEPC is composed of one of the smallest indivisible elemental particles, if not the smallest fundamental element, the electron, with a mass of $0.511 \text{ MeV}/c^2$ ^[28], it would be a truly colossal amount when multiplied by the volume needed to fill the universe. A colossal plasma collection of a subatomic substance that permeates the universe that exists everywhere and everywhere in between anything and everything. Therefore, it has to exist in sufficient quantities to explain not only what the medium of light is, but also what the missing dark matter is. A matter that is dark because it is the medium of light, which makes it not visible because it is imperceptible of itself. The only things perceptible in the medium of light are disturbance events within it. Since the MEPC does not create a disturbance within itself, it is not visible to itself or anything within it, and therefore, anywhere within the universe.

Furthermore, because the MEPC is plasma composed of minute, negatively charged electron particles whose individual negative pressure create a fractal pressure gradient that permeates everything and exists everywhere. This is a colossal negatively charged mass that is once again an overwhelming, ever-present and constant force exerting pressure on everything throughout the universe. Consequently, the missing dark matter is also the relentlessly invisible dark energy – a juggernaut force that fills the universe, which first pushes out on itself and then on everything else.

This is even more meaningful if you believe in the Big Bang Theory ^[29]. Because, this behemoth force would be a, if not the,

prime mover that when its electron masses were initially thrust in motion, out and away from the Big Bang, it would have the mass inertia to push everything encountered out and away with it. Couple this with the fact that it is also the centripetal containment force, as explained above, for the creation of all matter from the smallest of atomic particles up to and including gravity and beyond to the conglomeration of the galaxies and the containment of the universe. Consequently, it is both the outward thrust and the containment force that is putting everything in motion and at the same time holding everything together. It is the prime mover and containment of the universe.

EXPLANATION OF THE QUIRKINESS OF QUANTUM MECHANICS

With the understanding of both the vastness and the minuteness of the MEPC that is solely composed of electrons, one of the smallest, if not the smallest, of indivisible fundamental particles, that occupies the universe and everything in it. We can now begin to make sense of the quirkiness of quantum mechanics. This begins with the understanding – that there is no such thing as a subatomic vacuum. Because the MEPC, the Magnetic Electron Plasma Cloud, must fill the space between everything in order to make everything visible in addition to providing the requisite electrons for every element's subsistence – it must exist everywhere and everywhere in between.

This means that when there is a subatomic experiment involving electrons, it is like doing an experiment with a Ping-Pong ball in a room filled with ping pong balls that are all of the same size and totally indistinguishable from one another. So if one attempts to do an experiment with an electron ping pong ball, like shoot it across a room (filled with electron Ping-Pong balls) the observed result is the illusion that the original electron Ping-Pong ball comes out on the other side. The reality is that what is being observed and measured on the other side of the room is a percussive billiard ball effect that the original Ping-Pong ball has on a series of percussive interactions with all of the other electron Ping-Pong balls that fill the room. This then gives the illusion of the original electron Ping-Pong ball coming out at a remote location – or coming out at any or multiple remote locations. This then explains the quantum entanglement ^[30] effect of sending a quantum signal to one recipient that will be the exact same signal received by another recipient, even though the two are a considerable distance away from each other. However, with the knowledge of the MEPC, we can now see that this entanglement effect is not only, not strange, but also totally expected. What would be an anomaly, per the MEPC, would be if they did not receive the same signal: that should then require further explanation.

Moreover, this gives credence to Einstein's belief in cause-and-effect reality along with an explanation of why the only way to calculate anything on the quantum scale is with probability. Because the outcome would not only have to account mathematically for the numerous electron chain reactions occurring along the projected pathway, it would also have to include the effects of the electrons that are a part of the room and the experimental equipment to include the experimenters and their observers. Never mind all of the rest of the electrons of the universe that are having varying degrees of effects on this event and that are affected by it. Add to this, the improbability that the experimenters could begin the experiment with a known electron, because it too is indistinguishable from all other electrons. Not to mention that this event is being put in motion in a room full of electrons – that are presumably all moving around at the speed of light, 299792458 meters per second, or 186,282 miles per second, in free space.

This along with the electron's ephemeral and mercurial nature not only explains the need for quantum mechanics' probability calculations, but it is also a further explanation of Heisenberg's Uncertainty Principle ^[31], where the observation of a system in quantum mechanics disturbs the system enough that you can't know everything about the system. Never mind knowing and being able to know both its location and speed at the same time.

ELECTRONS, POSITRONS, AND FUSION

Another nomenclature clarification needed is to reconsider one of a Paul Dirac's quantum mechanics conclusions. Quantum mechanics not only correctly predicted how electrons work, but that it also works for particles that behave like electrons with a positive charge, which was then inappropriately named antimatter ^[32]. Instead, the particle that is the opposite of a negatively charged electron is simply a positively charged electron, which has also been more appropriately named a positron ^[33]. This should not only clear up the search for missing antimatter, but it also gives an insight into the makeup of the atomic core.

Although seemingly rare, positrons have been proven to exist and the reason that they are so rarely found might be – because they are all tightly locked inside the nucleus of the atom. Evidence of the existence of both the electron and the positron being inside of the atomic core's nucleus is demonstrated by the fact that – when either a neutron or a proton breaks down – they respectively emit either an electron or a positron ^[34].

The fact that the nuclei of atoms have electrons and positrons inside of them could explain what is giving the atomic core its positive charge, along with being the source of the strong force. Just like there is a fractal hierarchy of forces with their accompanying electron clusters and accompanying electromagnetic and gravitational fields, which currently begins with the strong force that grows to the mass clustering of galaxies, there should also be a minute and stronger interaction of forces taking place inside the atomic core of all proton and neutron particles. Except, this primal interaction is going on between electrons and positrons inside the nuclei. However, instead of electrons and positrons annihilating each other when they meet (which seems to be both a violation of magnetism and the conservation of energy), they should instead – instantaneously bond – fuse.

These internal core electron/positron nucleus fusions could then create the strong force that forms and holds together the atomic nuclei protons and neutrons. This is simply another fractal continuation of the hierarchy of forces with an even stronger more minute fusion force generating the strong force inside of the atomic nuclei's protons and neutrons with its accompanying electromagnetic field being the electron clusters in their designated atomic cloud shell spaces located around the inside of the atom, which are continually recirculating within and between the protons and neutrons. A fractal subatomic core process of a positron pull working in concert with the constant electron push of the atom's shell electrons to instantaneously and constantly supply and sustain the nuclei with properly aligned positively or negatively charged electrons that generate electron/positron pairs to form quarks ^[35]. With the main difference between the electron and the positron simply being a matter of magnetic charge and perhaps other alignment characteristics.

Further credence that something like this is going inside of protons and neutrons again comes from the observation that the beta decay of protons and neutrons only occurs readily inside of the atom ^[36] (where they are being sustained by the electrons from the atomic cloud's shell spaces).

Accordingly, this would provide a naturally occurring, simple binary combination of two primary subatomic elements – electrons and positrons. From this simple binary combination of electron/positron pairs with a combined mass of approximately $1.022\text{MeV}/c^2$ could then be compiled sufficient quantities and combinations to build up-quarks ^[37] of 1.35 to $3.3\text{MeV}/c^2$, down-quarks of 3.5 to $6.0\text{MeV}/c^2$, or approximately 919 electron/proton pairs that would make up either a proton or a neutron of approximately $939.56\text{MeV}/c^2$, along with any multitude of subatomic particles. This is a lot like the periodic table of chemistry that on a larger magnitude of scale has 118 atomic chemical elements assembled with only three primary subatomic elements: protons, neutrons, and electrons ^[37]. Consequently, this subatomic table would only be composed of only two fundamental, indivisible, elements – electrons and positrons. From which, all possible quarks, protons, neutrons and all other substances of the universe are composed.

CONCLUSION

The MEPC, the Magnetic Electron Plasma Cloud, is plasma composed solely of electrons that permeates the universe. In addition to being the source and recipient of all electrons outside of the atom, it is an omnipresent, negatively charged, subatomic substance that is the force and source that creates and maintains the structure of the atom. It is a force that is both the prime mover and coagulator that puts everything in motion and holds everything together. It is a fractal pressure gradient and generator of a fundamentally necessary hierarchy of forces: fusion, strong, electromagnetic, weak, gravity, and beyond. It is the generator, coagulator, and therefore, creator of all matter that explains why and how everything is coalesced, and held together. It not only explains the creation and containment of atomic and subatomic particles but also the containment and coagulation of galactic clusters along with the clumpiness of the universe. It explains why gravity is larger and weaker than the other known forces, along with why Einstein's and Newton's gravitational forces work, and how they work within each other.

Furthermore, it explains how the generation of the electromagnetic force is also the creation of light. How the MEPC is the median of light that explains what light is and how it exists as both a particle and a wave. What dark matter and dark energy are, and why they are not visible. Also being plasma that is the source and essence of all matter along with being the medium of light that must exist everywhere and in between everything in the universe, it explains some of the not so quiriness of quantum mechanics. The MEPC is plasma solely composed of electrons, the source of all energy and the generator of a fractal pressure gradient of forces that creates and controls all matter along with being the medium of light and gravity, and all things contained in it – it is the essence of the universe.

REFERENCES

1. Roger P. The Road to Reality. 2005.
2. Plasma: CPS 2000 Coalition for Plasma Science. What is Plasma?
3. Randy R. Stratosphere: National Earth Science Teachers Association (NESTA). Windows to the Universe. Stratosphere. 2009.
4. Strong Force: aether.lbl.gov/.../strong/strong, The Lawrence Berkeley National Laboratory,
5. Fawwaz TU, Eric M, Umberto R. Electromagnetic force. 6th ed. Fundamentals of applied electromagnetics, Prentice Hall, Boston; 2010.
6. R Nave. HyperPhysics Nuclear Binding Energy. Georgia State University. Weak Force: The Encyclopedia Britannica. Physics Weak Force.
7. Beta Decay: Jefferson Labs, Glossary Term Beta Decay.
8. Largest Element: Gagnon, Steve. Jefferson Labs. Its Elemental. The Periodic Table of Elements
9. Electron Spin: Wikipedia. Spin. 1998.

10. Dirac Sea: Wikipedia. Dirac Sea.
11. Gravity Problem: Finkbeiner, Ann. PBS the Nature of Reality. What's the Matter with Gravity? 2012.
12. General Relativity: Max Plank Institute for Gravitational Physics (Albert Einstein Institute) Einstein online – General Relativity. Einstein's geometric gravity. 2015.
13. Einstein Gravity: Max Plank Institute for Gravitational Physics (Albert Einstein Institute).Einstein online – Gravity from weightlessness to curvature. The Geometry of Gravity. 2015.
14. Heat: The Chem Tea. Thermochemistry, Energy-Work-Heat-Temp. III Heat.
15. Heat: Study of Heat Transfer, Mechanical Engineering, Colorado State University. 1969.
16. Temperature: Spark College, SAT Physics Test Center, Notes by Barns and Noble. Definition of Temperature. 2015.
17. The Clumpiness of the Universe: Thomas, Bryan. The Institute for Creation Research. Universe's Matter Is Too Clumpy. 2011.
18. Einstein's Photo Electric Effect: Davis, Warren Ph.D., President, Davis Associates, Inc., From Physic & Astronomy Online, PhysLink.com. The Photoelectric Effect.
19. Origen of Photon: Purdue, Asha. Science Is Beautiful Blog Origen of Word Photon. Feb 2010.
20. Photon Theory of Light: Zimmerman Jones, Andrew. Physics, About.com. What Is a Photon. December 16, 2014.
21. Speed of Light: Wikipedia. Speed of Light. Last updated 8 April. 2015.
22. The Standard Model: Elert, Glenn. The Physics Hypertextbook. The Standard Model. 1998–2015.
23. Einstein's Theory of Light: Ekspong, Gösta. The Dual Nature of Light as Reflected in the Nobel Archives. Nobelprize.org. 2016.
24. Visible Light: NASA. What Wavelength Goes With a Color?
25. The Wave Theory of Light: Canon Inc. Science Lab. What is Light. Chapter 1 The Mysteries of Light.
26. Wave Definition: Elert, Glenn. The Physics Hypertextbook. The Nature of Waves. 1998–2015.
27. Electron Mass: Wikipedia. Elementary Particle. Last modified 15 March 2016.
28. Big Bang Theory: NASA Science Astrophysics. The Big Bang.
29. Quantum Entanglement: Wikipedia. Quantum Teleportation. 2012.
30. Heisenberg's Uncertainty Principle: Wikipedia. Uncertainty principle. 2016.
31. Anti Particles: Highfield, Roger. New Scientist. How Dirac predicted antimatter. 12 May 2009
32. Positrons: Levine, Alaina. American Physical Society. APS News Carl Anderson - California Institute of Technology, Pasadena CA - Discovery of the Positron 2009.
33. Beta Decay: Lawrence Berkeley National Laboratory. Beta Decay. Last updated: August 9, 2000.
34. The Standard Model: Elert, Glenn. The Physics Hypertextbook. The Standard Model. © 1998–2015.
35. Beta Decay: Lawrence Berkeley National Laboratory. Beta Decay. Ibid
36. Up-quarks: Elert, Glenn. The Physics Hypertextbook. The Standard Model. Ibid
37. Fractal Simplicity: Michio Kaku and Jennifer Thompson, Beyond Einstein. 1995;68.