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Behavior of Electrons in the Phenomenon of Induction

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Abstract

The author proposes the Induction to be achieved without movement of the Conductor or the Magnetic field. The scientists can implant on the surface of Conductor a dense nano-grid emitting impulse Magnetic field. The pulsating lines of force of the Magnetic field hit the pulsating electrons and thus electrons rotate. The rotating continues until most of the electrons in the conductor order and phased their perpendicular vectors parallel and unidirectional to the external magnetic lines. Thus, open inputs most likely point towards one and the same end of the Conductor. Therefore, the phenomenon Induction of Electric current is connected with phasing of the electrons along the 3 axes. The existence of the phenomena Induction is direct evidence of exactly this structure of the electron according Theory of new Axioms and Laws. Exactly the inner structure of the electron is the reason it to react the outer impact of the lines of external Magnetic field in this kind. Therefore, electron reacts like a particle or cell possessing some internal sensitivity and external reflex.

Keywords: Induction, Magnetic Field, Inner Electrons, External Reflex.

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Introduction

The article uses the results and conclusions from the Theory of new Axioms and Laws. With their help and as a result of many years of research, the author has established the approximate shape of the elementary particles and in particular of the electron.It is formed by an open transverse vortex according New Axiom1(Figure 1b).The transverse vortex, delayed from the outside-in, generates an accelerating longitudinal vortex from the center-out (Law1) (Figure 1c).

a) The Classic Axiom

It is known that Maxwell's laws (1864) are based on a single Classic Axiom (Figure 1a) [1].
It states that:
div rot E = 0. 1.

The author change a little this axiom as the movement of a vector E in an open loop (div rot E ≠ 0) or an open vortex (div Vor E ≠ 0) is unevenly (velocity is variable(Figure 1b,c,e) The new Theory. consists of 2 Axioms and 8 Laws.

It Leads to the Following Results: Evenly movement is replaced with unevenly movement (decelerating or accelerating); movement in a closed loop is replaced with movement in an open loop or vortex; during its movement decelerating vortex emits primary free cross vortices, while accelerating vortices suck in this primary free cross vortices ; movement in 2D is transformed into the movement in 3D as a cross vortices in 2D generates a longitudinal vortex in 3D through a special transformation and vice versa- longitudinal vortex in 3D through another special transformation generates the cross vortices[2-4].

b) New Axiom 1: The Motion of Vector with Monotone-decreasing or Monotone-increasing Velocity becomes along an Open Vortex: div (VotE) ≠ 0 for Vector E in 2D or div (VotH) ≠ 0 for vector H in 3D.
div (Vor E)> 0 or div (Vor E) <0 in 2D, 2.
div (Vor H)> 0 or div (Vor H) <0 for 3D.

The main result of Axiom 1 is that there have been 4 types of vortices: a transverse vortex in 2D (E2D) that can be self-accelerated (E2D +) or self-decelerated (E2D -) and a longitudinal vortex in 3D (H3D) that can also be self-accelerated (H3D +) or self-decelerated (H3D -) [3]. Therefore, if exists an open spiral, then it is accelerating or decelerating or velocity is variable

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At every (i) point p(i) of a self-decelerating transverse vortex E there are two simultaneous movements: velocity vector (-V) and amplitude of the cross vortex(-W). The two simultaneous movements (V and W) exist at determines points of the vortex.

According Law1 the transvere vortex (E2D -) is transformed into a longitudinal vortex (H3D+).

This is accomplished through a specific operator (Δ1) for cross-longitudinal transformation (Figure 1c). Thus, the transformation Δ1 connects two spaces with different qualities.

c) Law 1: The Open Transverse Vortex (E_{2D}) Generates (Inward or Outward) an Open Longitudinal Vortex (H_{3D}) in its Center through a Transverse-longitudinal Transformation Δ1:

Δ1

Vor (E_{2D}) => - Vor (H_{3D}), where Vor (means an unevenly vortex) replaces rot (means a closed loop).

The cross vortex in 2D (E_{2D}) continues its development in 3D as a longitudinal vortex (H_{3D}), where the sign (-) for Vor (H_{3D}) 3D means that E_{2D} and H_{3D} have opposite dynamics (Figure1c). For example: When div (Vor E_{2D}) < 0 (is decelerated), div (Vor H_{3D}) > 0.

Maxwell's Law states that rotor of **vector E generates vector H** in center: rot E = H Unlike Maxwell, the Law1 states that the transverse vortex generates a longitudinal vortex [1].

Result: The cross-vortex Vor (E_{2D}) of vector E in 2D continues as a longitudinal vortex Vor (H_{3D}) of vector H in 3D.

The decelerating cross vortex (E_{2D}-) inward generates an accelerating longitudinal vortex (H_{3D}+) outward in its center through a physical transformation (Δ1-) (Law1) (Figure 1c). **Law1 for electron: The open decelerating transverse vortex (E2D -) generates inward an open accelerating longitudinal vortex (H3D +) outward. This action takes place from the center of decelerating cross vortex (E_{2D}-) through a particular transverse-longitudinal transformation Δ1-:**

Δ1-

Vor (E_{2D} -) => Vor (H_{3D} +). 3.

Actually, it describes in 2D the model of electron as the decelerating inward vortex (dec (e-)) (Figure1c).

The Electron of Type (dec(e-)) is of Outer Orbits or is Free Electron: expanded transverse vortex "pulsates in 3D in two modes of: in and out. Surely this type of electron or rotates at outside orbits(orbitals) or exists outside of the atom as free electron. This type of electron (dec(e): when the electron is free (outside of the atom) has decelerating cross vortex (E_{2D}-) inward, which generates an accelerating longitudinal vortex upward (H_{3D}+). **When electron is free (type (dec(e-)), the decelerating cross vortex (E_{2D}-) is broken**.

But accelerating longitudinal vortex (H_{3D}+) radiates a fast ingredient that connects to the decelerating longitudinal vortex (H_{3D}-) at input of the proton.

There is a Significant Difference in the States of a Bound Electron and a Free Electron.

For example, scientists measure the mass of a free electron with a decelerating cross vortex (E_{2D}-) But the mass of bound electron is less than the mass of free electron.

d) Law 5 for Electron: The deceleration vortex in 2D is described with a system of 2 equations in which: longitudinal velocity (V) decreases in (n) portions (ψn) times; the amplitude (W) increases in (n) portions (ψ n) times:

I V(t)2= V0 (Vo – V(t)), 4.

I W(t)2 = W0(Wo +W(t)),

where vn ,wn n are periodic roots with period n; vn, wn are mutual orthogonal that fulfill the requirement for an orthogonality: vn.wn = V0.w0, vn.ωn = V0.W0; n = 0 ÷ ∞; the roots vn, wn are expressed as: vn= (1/ψn).V0, ωn =ψn.W0; linear velocity V0 is the starting value of Vn, amplitude of cross vortex W0 is the starting value of ωn ,; ψ is a proportional that fulfills the requirement: ψ-1/ ψ =1; t is continual and even, Vn are uneven(-decelerated) and V(t) is nonlinear (Figure 1d).

Structure of Electron According New Axioms and Laws

According to Axiom 1 every non-uniform vortex with variable velocity is an open vortex. According Law1 an electron generates by the self- decelerating vortex from outside to inside so this is an open vortex.

The velocity vector at the entrance E1 is greater than the velocity vector E2 of the opposite point: E1>E2. Thus, the spiral will move up to the bigger vector E1 or to higher speed. And the vector E3 is greater than the velocity vector E4 of the opposite point from the left: E3>E4. Thus, the spiral will shift to the left to the higher speed. Thus, the whole spiral shifts up and to the left, and the spiral of the electron changes from centric to eccentric (Figure 1b).

Result: The Whole Spiral Shifts up and to the Left.

This means that the center of the spiral from the position of the Geometric center(O) moves up and to the left towards a new center in second quadrant, called the Gravity center(F).

Result: The Geometric Center moves to New Gravity Center in Second Quadrant.

The Eccentricity vector determinates the distance between the Geometric center and the Gravity center (Figure 1b).

Result: The Distance between the Geometric Center and the Gravity Center Determines the Magnitude of the Eccentricity Vector (OF).

It turns the spiral of the electron from centric to eccentric.

Result: The Transverse Spiral of the Electron becomes Strongly Eccentric Spiral

Meanwhile a fundamental role of this Eccentricity vector (OF) is that its projection along the x-axis repels the electron from its personal proton, and its projection to the y-axis rotates the electron around its personal proton. But in this article, we will not describe these movements.

Result: The Projection along the x-axis of Eccentricity Vector (OF) Repels the Bonded Electron from its Personal Pro-

ton, and the Projection along the y-axis of Eccentricity Vector (OF) Rotates the Bonded Electron Around its Personal Proton.

According to Law1 each transverse vortex generates in its Gravitational center a longitudinal vortex, perpendicular to the plane of the transverse vortex. In the case of the electron, the decelerating transverse vortex from outside-in generates in the Gravitational center a longitudinal accelerating vortex, perpendicular to the plane of the transverse vortex (Figure1c).

Result: The Decelerating Transverse Vortex of Electron Generates a Perpendicular Accelerating Longitudinal Vortex.

According to Law5, each main decelerating vortex radiates outward from itself decelerating primary vortices. In the case of the electron, the main decelerating vortex emits primary decelerating transverse vortices (Figure 1d). These primary transverse vortices are concentrated at the Gravitational center. In this center are phased the primary transverse vortices. They generate a longitudinal accelerating vortex through full resonance (in time and space). These primary transverse vortices represent radiated heat energy and fill the body of the electron with heat (Figure 1e).

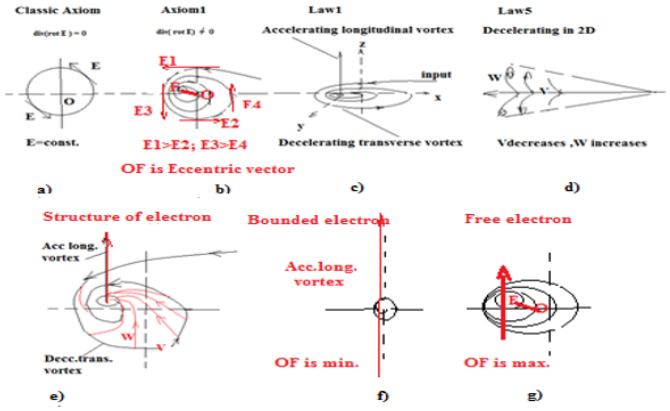

Figure 1: Description of an electron (e-)

Result: The Transverse Vortex of Electron is not Empty. It is Full of Primary Decelerating Transverse Vortices that Concentrate in the Gravity Center

Because primary vortices have great negative acceleration, they emit warm and heat (Law5).

Result: The Primary Decelerating Transverse Vortices fill the Central Part of Electron Body with Heat

According to the Axiom1, transverse and longitudinal vortices are obtained. The transverse vortices in the face of the electron and proton reflect the transverse waves of the Sun's rays, and any outside observer can see these particles. The result is that electrons and protons are visible to an external observer.

Result: Most of Free and/or Bonded Electrons are Visible.

But unlike the transverse ones, the longitudinal vortices do not reflect the transverse waves of the Sun's rays. Reaching the thin thread of the longitudinal vortex, the transverse waves diffract. This means that transverse wave bypasses the longitudinal vortex and continue in their previous direction and with their previous speed. According to Axiom 2, the electron and proton are connected as mutually orthogonal vortices by bond of longitudinal vortex and they operate in master-slave mode

According to Law 1, an accelerating longitudinal vortex perpendicular to the plane of the transverse vortex is generated at the Gravitational Center of the decelerating transverse outside-in electron vortex.

Result: The Perpendicular Longitudinal Vortex Generated in the Gravitational Center of the Electron is also Invisible to an External Observer.

This longitudinal accelerating vortex in Gravity center is also invisible to an external observer because it reacts with diffraction of the transverse wave of Sun light.

Working Mode of Electrons

a) Pulsating of Bonded Electrons in Time [6]

According Axiom2 the reason an electron pulsates in Time is because its orthogonal particle- proton pulsates and controls it as its supervisor. The reason an electron pulsates in Time is because its individual proton pulsates and controls it as its supervisor

Result: Electron Pulsates in Time because it is Paired to its Supervisor of Proton

In case of bonded electron the pulsating of its privet proton change him orbit from circular to ellipse.

Result: Because of that Every Electron Pulsates in Time, the Circular Orbit Turns into an Elliptical Orbit. Electrons are changed in form depending on place of their orbits.

b) Pulsating of Bonded Electrons in Space

If electron is at inner orbit it appears like a very slim spindel. If electron is at periphery orbit it appears like an expanded and flatted toroid.

Result: The Central Bonded Electrons are Similar to Slim Spindel, but Periphery Electrons –to Inflated Toroid. The central bonded electrons have very different properties than the periphery bonded electrons.

c) Pulsating of Free Electrons in Time

Free electrons are outside the atom and move freely in a lattice of metal atoms.The free electrons pulsate just like the connected electrons.

Result: Free Electrons Expand to a Toroid and Contract to a Spindle.

On each half-period (T/2) the electron expands to a swollen and flattened toroid and on the next half-period (T/2)- contracts to an elongated spindle

d) Free Electrons in Space [5].

If the electron receives a sufficient dose of external energy (for example from light quanta) this electron increases the radius and swells up.It increases the radius so much that the transverse bond with its personal proton is broken and the electron flies out of the atom or lattice of atoms and becomes a free electron.

Result: Free Electron Disconnects the Transverse Link with his Personal Proton, because Electron Maximum Swells up and Maximum Repells by the Proton.

However, the free electron keeps the longitudinal connection

with its personal proton. The free electron repeats the pulsations of the personal proton. Consequently, flying out of the atom or from the lattice, the free electron continues to pulsate with the pulse of its proton.

Result: The Free Electron keeps the Longitudinal Connection with its Personal Proton.
There are metals with metal grids with a maximum of free electrons (conductors). These electrons are of second type as inflated electrons in the form of balls : they move chaotically in space and pulsate chaotically in time

Movement of Free Electrons along the Conductor

a) Free Electrons in Conductor without Voltage
When the conductor is not connected to an Electric Voltage the electrons move randomly and pulsate randomly.When the conductor is connected to any source of Electrical Voltage, an electrical network or an electrical battery, then the electrons are directed to the positive pole.

b) The Eccentricity of Electrons is the Reason to Move along the Conductor Under Electricity Voltage
When the Conductor is connected to any source of Electrical Voltage, an electrical network or an electrical battery, then the electrons are directed to the positive pole.

The movement from chaotic becomes directed, but the pulsation remains chaotic. Thus, the conductor is filled with ordered electrons directed to the positive pole. The positive pole gives energy to the transverse vortices of these ordered electrons.

These electrons are ordered, but they are in different phases of pulsation in time. But because of eccentricity , the pulsation to the right direction has a larger amplitude, than to the left direction where the amplitude is smaller.Therefore, more and bigger (in amplitude) transverse waves are emitted to the right of the plus source than to the left.

Result: Because of Eccentricity, the Amplitude of Pulsation in Time to Positive Pole of Conductor has a Larger Amplitude, than to the Opposite Pole of Conducter.
The reason is that the electron is eccentric: to right it emmits more than to left (Figure 1e). Thus, the conductor is filled with a wide range of waves, more directed towards the positive than towards the negative pole.

Let's specify the positioning of the free electrons in the conductor. They are directed with their active tails (ends) towards the positive pole.

It should be emphasized that these electrons are arranged only along 1 coordinate - the longitudinal axis of the conductor where their open tails point.

Result: When Electric Current Flows through the Conductor, the Tails of the Electrons are Arranged to Point to the Axis of the Conductor
The planes in which the transverse windings lie, their toroids are always perpendicular to the plane - the cross-section of the conductor.

Result: When Electric Current Flows through the Conductor, the Transverse Vortices of the Electrons are Perpendicular to the Cross-section of the Conductor
Their longitudinal vortices are perpendicular to their transverse vortices according to Law 1. Their longitudinal vortices have different field coordinates, make different angles and point in different directions, in a 2D plane parallel to the cross-section of the conductor

Result: When Electric Current flows through the Conductor, the Perpendicular Longitudinal Vortices of the Electrons lie in a Plane (2D) Parallel to the cross-section of Conductor and have different polar coordinates (angles).

In this way the planes of toroidal body of free active electrons areperpendicular to cross section of Conductor.

Result: The Active ends of Electrons are Directed to Only One Direction - to the Positive Pole.
The electron planes intersect the volume (3D) of the Conductor at different angles but are always perpendicular to the cross-section (2D) of the Conductor. Thus all active ends of electrons point only to the positive pole.

Result: All Free Active Electrons like Transverse Coils (Windings) Lie in different Planes Perpendicular to the Cross-section of the Conductor.
Because electrons are eccentric (when Conductor is under Votage) they direct the more expanded part of the toroid and, accordingly, their open inputs towards the positive pole

The more expanded part of toroid radiates towards the positive pole more than more shrunk part emits towards the negative pole (Figure 1e).

Result: Because Electrons are Eccentric the more Expanded Part of Toroid Radiates Towards the Positive Pole more than more Shrunk Part Emits Towards the Negative Pole

Conclusion: The reason for arrangement in Space and its directing to only one pole is eccentricity of electron.When Conductor is connected to an Electric Voltage the phasing of electrons along a Conductor occurs in only 1 coordinate - the electrons arrange their tails along the axis of the Conductor

c) The Transverse Waves are Electicity Waves
The Electricity wave propagate at the speed of light(3.105 km / sec), although the electrons move much slowler at a speed (cm / sec). So we saw that pulsating free electrons slowly (cm / sec) can move along the Conductor.

Because of that electrons are eccentric they pulsate and emit transverse Electromagnetic waves with a greater amplitude to the positive pole than to the negative pole. But these Electromagnetic waves propagate with the speed of light. Thus, an Electric wave is located along the Conductor moving towards the positive pole. (Figure2).

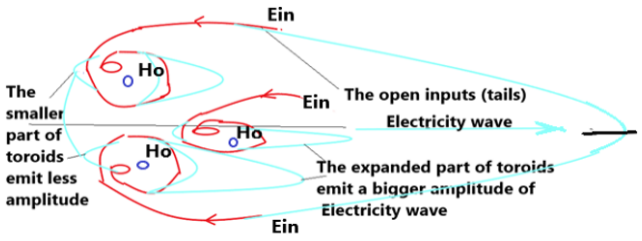

Figure 2: Ordering of electrons in Induction when the Conductor crosses an external Magnetic field by movement in

Induction of Electrons (e-) as Iinternal Electricity Wave

a) Induction According Classical Electromagnetic Theory

The proposed from Theory of new Axioms and Laws internal structure of the electron does not contradict the external and more superficial description of the electron from Classical Mecanics.

In both cases the direction of internal Inducted Electricity wave obeys the Right Hand Rule:
Theelectron descripted as an open eccentric formed by out to inward decelerating vortex fully obeys the of Right Hand Rule. The Right Hand Rule for direction of inducted electrons (e-) states: If the outer magnetic lines of force (Ho) pierce from down to up the palm of the right hand and the thumb points to the direction of movement of the conductor, then the fingers point to the direction of the induced electrons (e-) [7, 8].

Result: The Direction of Inducted Electron (e-) as an Open Eccentric from Outward to Inward Decelerating Vortex Fully Obeys the of Right Hand Rule.
Respectively the direction of the Electric current (or the direction of the positive particles) is determined by the Left Hand Rule. Therefore, the phenomenon of induction actually carries out a separation of the movable negative charges (electrons e-), which are directed to one end of the conductor from unmovable positive charges , which are directed to the opposite end of the conductor.

Conclusion: Induction of an electrons (e-) according to the Classic Electromagnetic theory occurs when a Conductor moves in an outer constant magnetic field (Ho), which crosses the Magnetic lines of force perpendicularly. The direction of the induced electrons is determined by the Right Hand Rule.

b) Foundation for Induction According New Theory of New Axioms and Laws

Let's recall and summarize that the electrons exist in the metal lattice as free electrons.Because electrons are in free mode they are bulging along a transverse vortex and shrunk along a longitudinal vortex. According Axiom1 the decelerating transverse vortex is the reason the electron to be a strong eccentric.(Figure 1e).

Result: Free Electron is Very Eccentric Expanded and Flattened Toroid Formed by a Transverse Vortex with Very Large Radius and Small Lengt of Perpendicular Longitudinal Vortex
Because of eccentricity of electron during its pulsation, it emits a transverse wave with a greater amplitude from its convex side than from its flattened side.

Result: During Pulsating in Time the Free Electron Emits a Transverse Wave with a Greater Amplitude from its Convex Side than from its Flattened Side.
Because that the electron is generated by decelerating transverse vortex, it is becomes an eccentric. The previous center is the Geometric center but the new center is named the Gravity center. It is moved in the second quadrant.

Result: The Geometric Center moves to Second Quadrant in New Point named a Gravity Center
The distance between the Gravity center and the Geometric center determines the Eccentricity Vector (Figure 1b). The magnitude of this Eccentricity vector is maximum for free electrons. (Figure 1g). For bound electrons, the eccentricity vector decreases with decreasing distance to the nucleus and limites to minimum (Figure 1f)

Result: For Free Electron the Eccentricity Vector(OF) between Geometric and Gravity Center named Eccentricity Vector is Maximal.
According to Law 1, the free electron has the expanded transverse vortex which has a large radius and it generates in its Gravity center a perpendicular longitudinal vector which has a small heigh.Therefore the body of the free electron is formed as an inflated and flatered toroid (Figure 1e).

Let a diameter be drawn along the length of the Eccentricity vector. This diameter intersects the transverse spiral of the transverse vortex.in so called Sensitive point (Sp).

Result: The Eccentricity Vector (OF) Intersects Electron Toroid along Diameter in a Point Called Sensitive Point (Sp).
There exactly the distance between the transverse turns is minimal and at this place the Potential energy is minimal. This place is called the Sensitivity region.

Result: In Sensitive Point (Sp) the Distance between the Turns of Transverse Vortex of Spiral is Minimal and Potential Energy is Minimal
This described specific structure of the electron defines the also very specific explanation of the nature of induction.Such explanation of the phenomenon of induction will be made in the following points of this report.

The Electron Behaves as Intelligent Particle During Induction

a) The Purpose of Induction

According Modified third Maxwell"s Law if rotating body is struck from outside and depending on the direction of rotation then the body bounces on its axis (up or down) according to Right Hand Rule [8].

It is well known that Induction of Electricity current obtaines when conductor intersects the outer Magnetic lines in perpendicular direction.

According Theory of new Axioms and Laws the secret of the phenomenon of Induction the secret is that the randomly moving electrons becomes ordered their tails and directed them to one pole of Conductor (along 1 coordinate of axis of Conductor). Except this they order their planes of their toroids perpendicular to outer magnetic lines so that their own longitudinal vortices to become parallel and uni directional to external magnetic lines (Figure 3a,b,c).

Result: The Perpose of Induction the Electrons to be Phased in 3D so that their Positions are Determined by the Right Hand Rule.
Toroides of electrons aim to touch their Sensitive points (Sp) to lines of external Magnetic field. The reason is that in this position the Potential energy is minimal. In this position the electron is maximal stable.

b) The Algorithm of Induction
When conductor crosses the line of force of the permanent Magnetic field (Ho) it receives a shock which cause a primary decelerating transverse vortex (Law 5) from outside-in towards its center of Gravity

Result: The External Magnetic Field (Ho) Hits the Electron from Outside-in and Cause Perphendicular Primary Transverse Vortex of Reaction in Toroid Body.
These primary decelerating transverse vortices of reactions will generatea perpendicular primary accelerating longitudinal Reaction vortices (Hre) upward (Law1).

Result: In Gravity Center of Primary Transverse Vortex is Generated Perpendicular Vector of REACTION (Hre).
According Law1 from Theory of new Axioms and Laws and Modified third Newton's Law this generated perpendicular vector of Reaction (Hre) turns out to be always (apriory) parallel and unidirectional to the external magnetic field (Ho)

Result : The Vector of Reaction (Hre) Apriory is Parallel and Unidirectional to the External Magnetic Field (Ho): HreII Ho
But the reaction vector (Hre) of this new accelerating longitudinal vortex turns out to make any angle (in 3D) relative to the internal eigenvector of the main (He) accelerating longitudinal vortex of the electron itself: Hre make an angle to He (Figure 3d).

Result: The Vector of Reaction (Hre) form any Angle (in 3D) Relative to the Internal Perpendicular Eigenvector (He) of the Electron.
The geometric sum of the two vectors (Hre + He) gives a vector (Hsum) which rotates the electron. The electron twists so that the impact to be toward the sensitive point (Ps).

Or electron rotates in this kind that point of hit (Ph) to coinside the point of the most compressed spring of the spiral (Ps) (Figure 3d).

Result: The Point of hit (Ph) to Coinside with Point Sensitive (Ps) where has Minimum Potential Energy (minEp).
Thus the divergence angle between main electron vector (He) and reaction vector (Hre) is zero(in 3D). For this perpose the vector of Reaction vector (Hre) must be parallel and unidirectional with electron vector (He).

Result: The Angle between Perpendicular Electron Vector (He) and Reaction vector (Hre) becomes Zero (in 3D), or Vector of Reaction (Hre) becomes Parallel and Unidirectional with Electron Vector (He) : Hre II He
This means that the electron rotates in 3D (Figure3a,b,c).

Or in 2D electron rotates until it finds the Sensitive point where the turns of the eccentric spiral are spaced maximally closely (Figure 3f),.

Result: Rotating Continues until Electron Touches its most Sensitive Point (Sp) to the External Magnetic line (Ho).
The rotating electron find this Sensitive point (Sp) of most compressed spring of the eccentric spiral where the potential energy is minimum.

Result: In Sensitive Point (Sp) the Electron Falls into a Potential Hole where it is most Stable: Ep (Ps) = Minimal.
Therefore the electron reaches the point (Ps) of maximum stability and minimum Potential (Ep) energy (Figure 3d):Ep (Ps)

Result: When the Perpendicular Vector (He) of Electrons becomes Parallel and Unidirectional with the External Magnetic line (Ho) then the Electrons Point their Active Tails (Ein) to one and the same end of Conductor (with Inducted Positive Potential)
Thus when external Magnetic lines (Ho) is in point of sensitive (Ps) of electrons and the perpendicular vector(He) of electrons becomes parallel and unidirectional with the external magnetic line (Ho), than the planes of electron body(in 2D) becomes perpendicular to the cross section(along diameter) of Conductor and their active tails (Ein) point to one and the same end of Conductor (with inducted positive potential) (Figure 3d).

Result: Electrons Rotate until their Position is Completely determined by the Right Hand Rule.

Review

a) Necessary and Sufficient Conditions for Induction
For the phenomenon of induction of electrons, the necessary condition is to have a Magnetic field (reason1), and the sufficient condition (reason 2) is that there is movement and the Conductor crosses perpendicularly the lines of force of the Magnetic field (Ho) (Figure 3e).

The result is that an impact occurs at the outer point which abruptly stops the body of electron (Law5). According to Law 5, this abrupt stop generates a primary transverse decelerating vortex of reaction in direction from out to in. The plane of this decelerating transverse spiral is perpendicular to external magnetic lines (Ho). According to Law 1, this primary decelerating vortex generates a longitudinal acceleration vortex of Reaction (Hre) from its center upwards perpendicular to the plane of the primary transverse decelerating vortex.

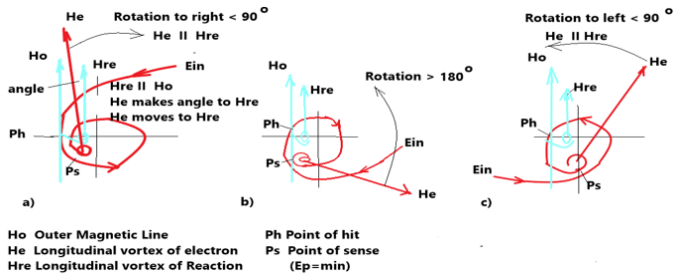

Figure 3: Induction of Electricity wave

(Rotation of electrons so that He to become parallel to Hre and Ph to coinside Ps)
Figure 3a) Electron rotates to right at an angle less than 90 deg., so that Ph to conside Ps.
Figure 3b) Electron is scrolling at an angle more than 180 deg, so that Ph to conside Ps.
Figure 3c) Electron rotates to left at an angle less than 90 deg. so that Ph to conside Ps.

According Modificated third Newton's Law this self- accelerating longitudinal vortex (Hre) is a reaction of body to outer impact (Ho)-in direction up (but not in opposite direction) Therefore Hre is paralell and unidirectional to Ho. But (attention!) the longitudinal vortex of Reaction (Hre) makes an angle in 3D space relative to the electron's own longitudinal vortex (He). As a result of some following moves Hre and He tend to become parallel to each other. Or the angle between them tends to zero.. Therefore the electron body will aim to rotate so that the two vectors (Hre, He) to become parallel (in phase) (Hre II He) with each other and also parallel (in phase) with the external magnetic field (Ho). Thus because vector of Reaction (Hre) is apriory parallel to the external Magnetic line (Ho), it is need only two vectors to be parallel and unidirectional, or in phase: He II Hre (Figure 3a,b,c) [9].

Result : The Larger Percentage of the Electrons will be Phased and Directed with their Active Tails to One End of Conductor and their Body will be Pherpendicular to Outer Magnetic field (Ho) according Right Hand Rule.

b) Review for the Phenomenon of Induction of electrons
As it was clear from previous point (6), the necessary condition is to have a Magnetic field (Ho) (reason 1), and the sufficient condition (reason 2) is that the conductor crosses perpendicularly the Magnetic lines. The result is that an impact occurs at the outer point of hit (Ph) which abruptly stops the transverse vortex of the electron. (Figure 4a).

According to Law 5, this abrupt stop generates a primary transverse decelerating vortex. According to Law 1, this primary decelerating vortex generates a longitudinal acceleration vortex as reaction (Hre) from its center upwards perpendicular to the plane of the transverse decelerating vortex. This smaller acceleration longitudinal vortex (Hre) will make an angle in 3D space with the electron's own longitudinal vortex (He). As a result they tend to become parallel to each other or angle between them becoms zero. At the same time they aim to become parallel to the external magnetic line (Ho). The result is that the electron body will rotate so that the two vectors (Hre, Hin) to become parallel (in phase) with each other and also parallel (in phase) with the external magnetic field (Ho).

Result: The Three Vectors will be Parallel (Hre, Hin, Ho) or in Phase.
As a result a large percentage of the electrons will be phased and directed with their active tails to one and the same end of conductor and their body will be pherpendicular to outer Magnetic field (Ho) (Figure 3a,b,c). Electrons react to the external hit (Ph) of the external magnetic field (Ho) by searching the most stable position in Space with lowest Potential Energy (min Ep) (Figure 3d).

Conclusion
During Induction the electron finds the most stable position by phasing the 3 longitudinal axes: Ho (outer Magnetic field), He (electron longitudinal vortex, Law1) and Hre (reaction as a local longitudinal vortex of local transverse vortex, Law1, Law5) [8, 9].

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