ASPECTS REGARDING LIQUID DIELECTRIC DISCHARGES USED IN ELECTRIC EROSION PROCESSES

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ABSTRACT: This scientific paper purpose is the problem of the chain of atomic, quantum and wavy phenomena that ends in creating the conditions for the appearance of a strictly local path, which is electrically conductive, through the liquid dielectric that washes the part and the electrode - tool in electrical erosion processes. A first aspect presented in the paper is the way in which ionized energy photons are generated by charge carriers. At the same time, through this study, are presented the complex physical phenomena that take place at the atomic and quantum level, in the processing of the unconventional technology of laser beam erosion. The last part of the paper presents its own points of view and conclusions on the topic addressed.
KEY WORDS: atom, orbital, discharge, laser fascicle, photon, infrared radiation.

1. INTRODUCTION

In the traditional study of photoelectric phenomena, the jumps of the peripheral electrons of an atom from a basic energy level to a higher energy level and their return to the old level are represented by vertical straight lines whose extension passes through the nucleus, allowing the assumption that from one energy level to their progress to another is momentarily, out of time, purely formal, on the shortest path, despite the fact that these electrons are said to revolve around the nucleus at a speed close to the speed of light. It still seems mysterious and inexplicable that when using relatively low energy densities (less than 10^5 W / cm^2) energy densities of photon fibers with a wavelength greater than 1 micron, especially for the infrared spectrum, do not neither atomization nor interaction in extremely large directed photons is observed. At concentrations above 10^7 W / cm^2 (which can only be achieved with a laser), new phenomena appear, such as intense light emission, ionization of unusually deep atoms and very high temperatures.

In the explanations related to these phenomena, the direct extrapolations are usually made from the quantitative aspects (easily expressed by numbers) to the new qualitative aspects and it is reached the explanation that the density of the absorbed energy, which is very high, is reached at high temperature absorption is not explained and further the temperature obtained, all are explained, including ionization and the appearance of light radiation. The implications of this kind of conventional explanatory extrapolation would be as follows: At this moment, when a photon affects the surface of a substance, an energy transfer takes place, a transfer that leads to an increase in the temperature of the substance, heating, solution formation, evaporation and displacement. It is now known that any experiment that records photonic effects, if strongly explained, even contributes to understanding the nature of photons and the complex configuration of atoms, which is still mysterious in small parts, which we also want through research and hope for new physical confirmation.

From the very beginning of electricity, it has been observed that electrical discharges follow a seemingly random path, unintentional, irregular and difficult to comprehend shapes, and no logical and simple straight path for the shortest distance. Lightning and thunder, which are also discharged through the dielectric, provide images of large-sized random paths created by electric discharge. In literature, the well-known hypothesis of electric current is also quoted, which explains the random character of the path in a satisfactory way after the electric discharge between two separate points through a dielectric. However, this hypothesis follows its logical explanation, starting with the high and appropriate springboard rather than the initial primary level. Springboard and its effectiveness are taken as the day, others who bear the responsibility of justifying and approving it, which comes exclusively after the springboard is a task adopted by the electric current estimation [1].

In the theory of electric currents, "in large populations of charge carriers, energy photons are emitted in fairly large numbers" [2]. It is considered curiosity, on which everything becomes an explanation [3]. However, why a large population of charge carriers released photons would not explain why this would be an appropriate justification for springboard functionality. However, with the rise of modesty and scientific caution, it is recognized that "multichannel discharge, including the evolution of the snow-electric current, explains in great detail every item of the physical process of processing electric decay, although physically, even physicists do not fully support it physically." No, it should still be taken with a grain of salt." [4]. Since in the future any possible improvement will be applied on the basis of the opportunities provided by the knowledge, the field literature clearly states that "with perfect knowledge of the phenomena occurring at different stages of electrical discharge the efficiency of the process of electrical decay of materials can be acquired" [5]. One of the primary goals of this work is to explain the phenomena of electric charge that generate electronic light photons in the early stages and as permanent predecessors with electric currents, and this produces another, which represents the springboard mentioned throughout the paper.

2. GENERAL ASPECTS

The principle of external photo-electronic effects was once assumed by important scientists and it has been irrefutably proven that higher level electron energy is achieved by quantum jumping, which means that a new energy level of at least equal energy is achieved by absorbing some photons, but not smaller

[6]. According to this conventional classical study, low-energy photons with high wavelengths, such as infrared photons with a wavelength greater than 800 mm, will not be able to stimulate the significance of electrons to jump to a higher stable energy level. Then the following questions can be asked: Lost insufficiently strong photons? Or: under what form can the penetration of random infrared photons be stored in the atoms of a substance?

Some hypotheses in the literature where the photonic phenomenon is described, regardless of whether it analyses the effect of radiation on the subject:

- the action of electromagnetic waves in the travel of free electrons between two consecutive falls;
- In the given example, the action of the electric component of the electromagnetic field represented by photon radiation - at a density of 10^9 V / cm^2 reaches 10^9 V / cm - this field will be stronger than the field that binds the outer electrons;
- the assumption that in such an intense field, "atoms or molecules can act in a strange and unpredictable way."

The first conventional hypothesis, that electromagnetic waves can be experimentally disrupted by free electron travel, strongly demonstrates that an electron with a wavelength of more than 300 millimeters (which can be easily stopped immediately after ultraviolet is created) In the case of free electronic travel, observation under a microscope) Photonic-electron interaction exclusively without explaining the mode of absorption. The second conventional assumption about the action of electrical components in a field characterized by photon radiation is interrupted by its nature, remembering that it is not an uninterrupted electric field but a completely separate phase of frequency and electromagnetic oscillations in the free electrons in X gamma.

The third hypothesis can be analyzed: that "atoms or molecules can interact in a strange and unpredictable way." To prove the hypothesis that electrons do not gravitate around atoms or ions, a relatively simple test can be performed even in interaction with visible radiation (with more illuminated photons than infrared radiation). In all the classical and conventional methods of physics that refer to the movement of electrons from point B to point B moving or unconsciously, it has been agreed for over a century that a free electron moves in a straight line in the absence of any local field. On the other hand, it has been claimed for three-quarters of a century that there is a particle-wave duality, which is still recognized as mysterious, and in reality the final claim is that the same particle in a particular situation may be the only particle wave in another. This mysterious aspect has indeed been desired and maintained for a very long time, considering humanity's desire for transcendental [7] and the least humanly perceptible aspects, which are therefore considered superior because they are difficult or impossible to present.

Even Bohr himself said in a famous statement: "You should never express yourself more clearly than you think." However, the famous Einstein basically argued that a physical explanation, including beauty, perfection, harmony, stability and protection, is desirable for everything for an image and a performance, rather than the desired possibility and doubt. He actually says [8]: “Quantum mechanics is very impressive. But an inner voice tells me that this is still not the real thing. The theory brings bad, but rarely brings us back to our old privacy (i.e.). Creator]. Anyway, I'm sure he doesn't play dice ... "[which means he doesn't rely on simple possibilities]. However, experiments have shown that “particles other than electrons, protons, neutrons, helium atoms, etc., indicate the behavior of their avy-rays. Thus, this property is the property of all micro particles. Q: Can a wave be reduced to a wave? The answer is not exciting. "[9]. A particular direct question is often asked:" What is the physical significance of the combined wave in this case? A generally accepted answer has been given by Max Byrne since 1962 and still remains: Presents [10].

We consider this claim valuable, it enables a scientific calculation, although it refers to the field of" dice ", we do not consider it physical, because the result of the match is the meat and bone players. Does not represent, but the place and manner in which players perform in certain situations. To achieve our goal of determining the physical significance of electronic waves, we have established an old hypothesis and based on this we will create our version of the application of the meaning of a pair of waves. In short, we are now running this hypothesis based on the idea that electrons move exclusively in a helix path. We emphasize: Free electrons move in a spiral, even in the nearest neighboring positions. Even around the nucleus of atoms and ions, electrons travel through the coils and these coals close in perfect continuity in the form of circles or ellipses to form a stable orbit. Of course, it is not possible for atoms to achieve any dimensional value of the coefficient of balance and stability of specific energy levels, but only quantitatively according to the isolated layers, well-established in quantum physics and represented by the steps and diameters of spirals created by electronic motion. Traditionally, as it is known, it was considered that a free electron moves linearly without the local presence of a magnetic or electric field of rotation between points A and B. According to the assumptions presented in this paper, an electron must move freely between points A and B, only in one way: by drawing a coil, never in a straight line.

Even electrons related to atoms or ions move around the nucleus, not in the conventional way, describing simple circles or smooth ellipses, but in the unconventional way, following the closed coils around the nucleus with the help of spiral lines. Although we consider the obsolete notion of any electronic motion to be the oldest and oldest of the other hypotheses and famous physics sayings, those who anxiously decided that such a thing was necessary, but scientific prudence and rigor only prevented it from mathematical methods Indicates as an opportunity for physical display. Which means that the need for a new vision, the way atoms and electrons should be understood, has been considered long and endless.

Even since 1926, Louis de Broglie has considered that "any micro particle can be attached to a wave". He even imagined the initial method of combining the wave-particles presented according to its origin. De Broglie did not perfectly create the image of the wave associated with the particle, but he set the conditions for it when he said: "A particle always acts as a body, but its movement is described as a wave." In recent times, some specific thinkers [11] looked at many mysterious aspects in detail and with interest, including the manifestation of wave-particle dualism, and stated: "A curve is like a screw, and in mathematics it is called a spiral curve. Either - with some of the following. "Or:" A solid spiral leads to a shorter wavelength and higher frequency, so a larger vibration and greater energy; a loose spiral means less frequency and less energy. In many of his conversations, he [Einstein] tried (but failed) to show that things have an underlying description of quantum and have a deeper structure as the basis of quantum physics, which would probably be more like the image presented to us by classical physics. " Such a structure, somewhat deeper than conventional physical theories, estimates the exclusive spiral motion of electrons, seeking the attention of experts.

The hypothesis has been introduced through this paper. The representation of the helix movement of the free electron enables the easy interpretation and the confirmation of the enigmatic "diffraction" on the nuclei of crystals, of the electron beams, because the electrons arrive at incidence coming from a helix, not a line, so that coming from the helix under different angles, they are circularly scattered when they reach a nucleus, creating so-called rings of diffraction, not because the electron would be a wave.

Representing the exclusively spiral motion of electrons allows us to unconventional synthetic confirmation that wave-particle dualism does not have two separate real or physical entities, but only a physical reality: a particle is never a wave, but only a coil, its localization and related fields. Is and the sources generated by its motion can be analyzed rigorously, brilliantly, but with the original methods of wave physics.

Through this hypothesis about the exclusive spiral motion of electrons we draw attention to in this research paper, we famous physicists did not want to disprove the facts that were rejected over time, but gave a new idea, which we consider useful, which again confirms the truth of the truth [11]. Their claims and calculations, even if it may be easier for them to understand, are more natural and unfortunately less startling. Even Niels Bohr says: "Contrary to accurate assurances, this is a false recognition. But the deeper truth may be the opposite of the deeper truth."

3. CASE STUDY – THE INTEGRATION OF ELECTRONS WITH ATOMS

In the process of electrical decay, under the influence of an electric field between the equipment electrode and the workpiece, the first accelerated electrons are emitted into the atomic mass of the dielectric liquid, which separates the electrons from the electrons emitted by the auto-electron discharge. Following the continuous electrical and mechanical phenomena, the process of electrical decay is inherent. These are electronic: discharge, conductor channel formation, a snow discharge, obstruction of a conduit channel. Among the electrical phenomena described, all have a conventional explanation that has become classical in addition to the phenomenon of conductive channel formation, which still obscures many obsolete and camouflaged aspects that lead to the random nature of electrical discharge through a zigzag dielectric instead of a straight line. In the following, we try to contribute to the explanation of these conventional phenomena.

The first accelerated electron reaches the atom of the dielectric fluid, as the electron points in the right direction toward the centre of the nucleus, from position 1 of Figure 1, to 2 located in a coil, without radiation with a wave attached to the electron, including compensation. Electrical motion helix and the field components generated by this helix motion. The same electron, since it is a negatively charged particle, when it reaches the atomic cloud and nucleus, reaches a point of position 2, the negative charge of the electronic cloud begins to be interrupted by the coulomb adverse effect. In the braking process, the electron will lose some of its conservative energy by reducing the speed, causing the coil to move slowly, increasing the diameter and speed of the coil, creating a reduced linear speed of the network and more connected wavelengths.

During this change in the speed of the electron, which reaches from position 2 to position 3, the moving helix changes and adapts to the new velocity of the electron. The correlation between the previous wave and the newly formed wave can no longer be realized while correcting the diameter and velocity of the electrically moving helix coil, the conditions from one coil to another are no longer uniform. The difference between field and energy spreads like an infrared photon. As we know, infrared photons are strong and highly ionized photons. After advancing towards the atom after electronic radiation, reduction, and deviation, the electron reaches a steady speed away from the atom, staying in positions 3, 4, and 5 along the coil path with constant diameter and speed, which corresponds to a steady lower speed than near the atom. . Since the distance of an electron from an atom in a plane coil at a constant speed is a motion with a constant speed and direction, the combined wave is compensated again and does not radiate around itself.

Infrared photons, disturbed during the breaking phase, when the electrons reach positions between 2 and 3, combine with other atoms of the fluid to form ions by pulling valence electrons, ionization, which, in turn, forms a conductor in a chain of many ions. The photons seen with them create conditions. During the mentioned braking the speed of the infrared photons is emitted, equal to the speed of light, therefore higher than the speed of the electrons produced, the infrared photons move in each direction from their place of production and the ionized atoms in different directions. The different and random directions performed by different chain ions, which coincide with the applied electric field line, will guide the development of future discharges through the dielectric and which will widen and develop a precipitation through other conventional related phenomena: local temperature rise, ion collision. Atoms with electronic drawing and atomic atoms, secondary and third electron emission etc.

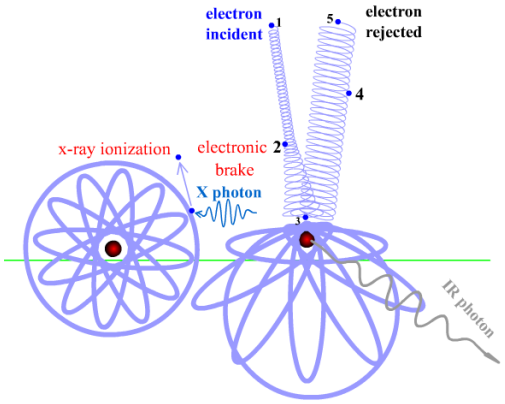

Figure 1. The basically mechanism. [12]

However, the starting point of this chain event was the first striking electron and the first infrared photon, without which the other mentioned event would not have occurred. As mentioned in the field literature, the percentage of infrared photons in the energy balance is less than 1%, because even in infrared generation tubes, which are used for X-rays, special purpose tubes are made for this purpose and with optimal conditions for the production of infrared photons. , The maximum 1% energy is converted to X-rays, the difference becomes heat. The electronic cloud is distorted by the electronic resistance as long as the electron reaches the atom. Even the nucleus near the nucleus experiences an extremely reduced attraction from nearby electrons, but after thousands of repeated attractions with other electrons, the nucleus acquires the vibrational motion shown by Figure 2, 4,5,6,7,8,9 position, increasing the vibration from one to another. The amplitude of the event, representing its increased temperature, is radiated through the infrared photons emitted into the temperature environment.

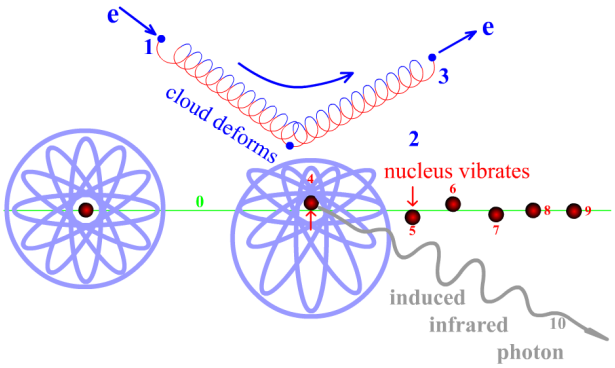

Figure 2. The second mechanism. [12]

In Figure 3, the presence of electric current in four different steps can be seen as a means of electrical discharge, first propagating infrared photons, such as oscillations produced by braked electrons, then chaotic random ions, ions that are reddened by their electric clouds Atoms represented by a blue cloud. After the presence of electric current, the discharge develops in a snow current until the energy is not limited by the external circuit, the discharge is accompanied by light radiation, the radiation produced at high temperatures.

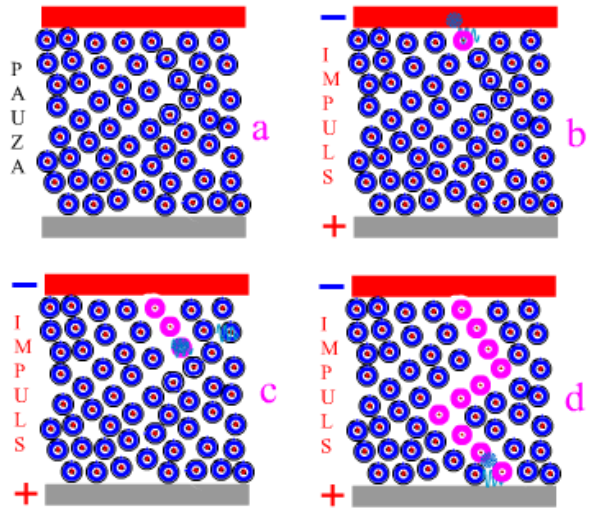

Figure 3. The third mechanism. [12]

4. NONCONVENTIONAL HYPOTHESIS OF PHOTONIC JUMPS IN ATOMIC SPACE BEFORE QUANTUM TRANSITIONAL AT LOWER LEVELS

Quantum energy is exchanged exclusively through the amount of $h\nu = E^2 - E^1$ in the natural way to explain the phenomena that occur in the interaction of photons with atoms or ions. Other explanations are needed for the absorption of non-energy photons with longer wavelengths than an electron can avoid at a higher energy station stage.

This is not new, but we notice that in this exceptional situation of photon density, within the focus system, the grouped photons of the laser folder are transformed from photon explosions that simultaneously act one after the other on the photon line. The second provides a photon bombing with a break between two photons, aiming at zero near the continuous series of photons.

The photons in the parallel laser folder are grouped and moved at the same time but after concentration with the focusing system, their trajectory changes. Those in the centre of the folder reach the target quickly and those from the edge of the folder reach it later, so the parallel groups of photons are simultaneously converted into a series of moving photons, working one after the other between events occurring with photons and electrons. Small

The first case

When absorbing wavelength non-energetic photons that can make the electron jump to a higher stable level, the electron does not receive an extra velocity from the photon, which would be sufficient to make the whole quantum jump.

When this type of photon is absorbed in a leap, the electron absorbs the energy associated with the leap, and when the electron returns to its old state, it is characterized as a frequency vibration similar to the vibration of a random photon, but has a smaller amplitude.

The second case

We present an example of volleyball. If the volleyball reaches me from behind and at a slow speed I fail to send the ball over the net, making only temporary and temporary arrangements in the jump, the player of the other team comes and he applies the ball to the other net by applying the ball to the jam, even if The ball passed over the net but was as slow as mine. Two slow volleyball players who work one after the other and freeze one after the other can achieve success in volleyball as soon as possible. In volleyball, two jumps can be made in a row, but in the case of infrared photons, there can be two more jumps that work continuously and an electron accumulates (if the photons come quickly and often one after the other).

The third case

For example, back in volleyball, for example, after another volleyball player applied the ball and sent the ball over the net, the ball landed on the opponent's court (which was immediately in place with the opponent). Suddenly it falls into one stage although it rises in two steps (below the jumps). If a fast player was sent, the ball could reach the same height and fall at the same speed as two slower players, but gradually fell.

Figure 4 is a schematic representation of an atom with a segment from the nucleus colored red, as the Earth was considered archaeological, and represented by a portion of an electronic cloud at a tide near a nucleus with blue, and randomly infrared photons. As given. Coming one after the other, the photons regulate pH1 and pH2 regularly five and accumulate at a much higher level E2 from the ground level E1 below the jump of the same electron.

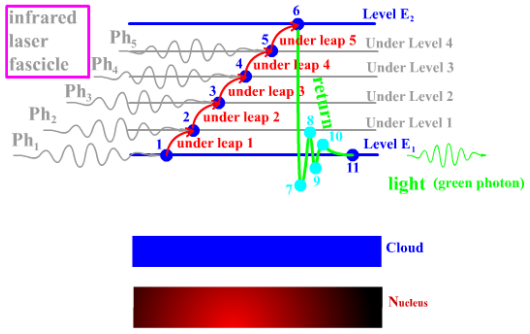

Figure 4. The electrons fluctuations. [12]

In the first absence of a continuous photon transition with the previous jumping electron, it falls to the ground level, but more than the ascent that occurs as a result of the ascent of a quantum jump, the ordinary visible or ultraviolet when the equivalent of a much more powerful photon comes out. In stable equilibrium like the rest of the atom the electrons fall directly to the old level with the same risk on the system of forces, the dampness fluctuates with the bay leaf, as well as any systematic collapse produced in the universe. From an electronic cloud.

At the same time, this drop of electrons at the old level is not new, it is done in a classic and well-known way, a drop that combines with events to emit a light photon. Such light photons are emitted in the same way when the electron ascends several increasingly increasing positions after appearing one after the other with uninterrupted infrared photons, but in large numbers. Thus, from being stimulated by infrared photons, the energy of the atom is rebalanced but light photons are also emitted. The sequence of events described in Figure 5 leads from the occurrence of successive infrared photons to light photons.

The fourth new explanatory step relates to the ascent of the ascendant which gives rise to an increasing number of electrons in the continuous fall of the infrared photon.

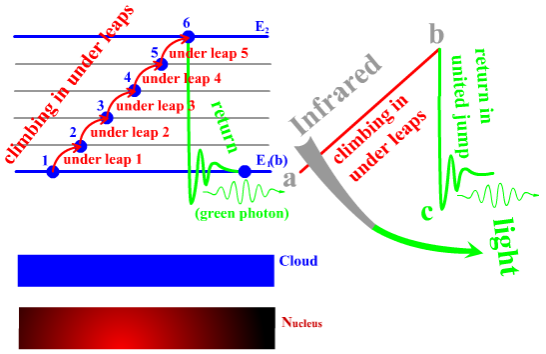

Figure 5. Light photon emission. [12]

The peripheral electrons of the atom are forced to rise from one moment to the next under the counter at the bottom of the jump, the random photons one after the other moving towards zero, until a large time gap between the photons or between the photons appears, the moment marked b. Such a break, which is reflected in the rise of the electron, suddenly returns to the basic level E1, with one jump.

According to the principles recognized in the electrical sciences, the generation of radiation fluctuates with the length or direction of the electric or magnetic field over time.

The loss of electricity between the E and B moments produces radiation as a photon emission of infrared radiation, but at the same time leads to an imbalance of the atomic nucleus - the electrical system of the cloud. Imbalances slightly alter the position of the nucleus through electron-static attraction and rejection which induces repetition of the described conditions, vibration of the nucleus of the atom, vibration of the atomic state at temperature. By repeating the cycle of a large number of a - b - c electrons, the vibrations transmitted to the nucleus increase in amplitude until it breaks the directions of the crystal or amorphous network, a removal equivalent to melting matter.

From each atomic nucleus of vibration, locally produced heat is transferred over short distances via acoustic photons that transmit vibrations into adjacent atoms.

Phenomena related to the moment of impact of the laser folder and the continuity of melting of the material: Infrared photons - an electron that creates a synthesis under the jumping under the quantum - temperature rise through intense repetition previous phenomena - occurrence of thermal generation Heat transfer through acoustic phones - melting materials by breaking solidarity bonds.

To easily follow the assumption event we submitted for recognition, we use the description in the following steps.

We unconventionally confirm, as the first statement, that the action of a photon on an electron containing molecules or ions is only temporary, according to the scientifically recognized photoreceptor effect, by jumping from one stable energy level to another, and even after passing quanta below the level with returns to their initial state.

By comparison, the photons provide the absorption of a photon in the classical description of the electrical effect, after the absorption of the photon from the initial layer E1 of the peripheral electron to the next layer E2 where the energy stands (rotates) time is estimated to be ten nano-seconds. Returns to the initial level E1 with the emission of a photon identical to the absorber.

1. If an atom absorbs a lesser body with a wavelength less than the wavelength required for E1 - E2, for example an absorbed corresponding infrared photon that has sufficient energy to return from the lower level E1,2 to the basic level E1.

2. In an unconventional way, as a second statement, we have noted that the energy of the same electron incoming photons can shorten the period of one repetition time (TR) to less than or less than the previous lowest level (held by a jump). Below the level (TR <TS), in situations where the photons are in very large numbers at a single time (as in the case of strong laser folders cantered on a small target on the element).

Thus, through a legacy of transient leaps in the increasing subalpine, the electrons are forced to ascend to other random photons and succeed in ascending one by one to higher forces without being able to return to the baseline due to lack of time to return. After each jump, but only on the first break between jumps.

There is room for such a hypothesis in the specific literature: the "authorized regions, known as" Briloin regions, "are formed by very close energy levels that form almost uninterrupted bands." Meaning is not uninterrupted, almost uninterrupted.

3. After an increasing jump to higher energies, these electrons gradually accumulate excess energy, gradually become unstable to a new level, return to the first break, disappear first at the bottom of the jump, straighten the base, which transmits stored energy (through several means). Continuous jump in the form of photons of radiation), can be observed in laser processing on

The idea is that only those photons that coincide with the rotation of electrons in orbit and in space can increase the range of the orbit (even if separated) in the range of decreasing energy continuously and increasingly. Such photons combine with the rotation of electrons that practically temporarily resonate with those specific electrons, while other photons, which have no resonance, have no effect. This kind of request is only possible when the number of events (favorable and unfavorable) is large enough, so the favorable ones will suffice. We call those photon arrivals which periodically coincide with the position of the electron at a particular moment and all the others are unfavorable.

It can be explained that the electrons found in the orbit worked by jumping to sub-levels of increasing energy, under the influence of random photons (in large quantities) were able to consolidate the energy part of the folder in increasing size (before returning to baseline).

The electron produced by the series jumps after a series of incremental activities of the cloud and the return of an electron from its composition under the collapse of the folds of the phenomenon in the collision of its photos.

This second integration stores the energy of the electrons that are driven by the photons in the random folder it processes and this is in the form of an electronic cloud vibration around the average position.

The vibrations of an electronic cloud affect the nucleus of an atom (which is two thousand times larger than an electronic cloud). In practice, the core, in the form of its own vibrations, integrates with the electron cloud distortion time, characterizing much lower frequencies and temperatures of the material. If the vibration has a greater amplitude than the direction of the crystal mesh, the network structure disappears and the material is considered to have melted or evaporated.

The vibration of the atomic nucleus, accumulating the energy of the electronic distortions of the clouds around it (performed in large numbers), represents the third concentration of energy received from the laser photon folder. The vibration of the internal adjacent atom, which did not reach the photons of laser radiation, but was induced by the acoustic phones emitted by the molecule by laser radiation, represents the fourth concentration of energy received by the processing material from the laser photon fascicle.

5. CONCLUSIONS

Within the realm of knowledge, now available as a set of data, there are endless resources for improvement in all fields, but there is still an opportunity: for the advancement of knowledge. In terms of perfect knowledge, there is more to complement aspects that have been intelligently recognized as still mysterious, there are new interpretations that will enhance their interpretation and play a role in lifting them out of the mysterious state. The introduction of the hypothesis of the exclusive helix movement of electrons not only contributes to the interpretation of the electric streamer hypothesis from the conventional technology of electrical decay, but also challenges physicists to avoid conventional wave research.

The use of new hypotheses will facilitate and explain the phenomena of absorption and photon emissions from atoms or ions, even if it is well developed or altered with another one that is closer to the reality of atomic and quantum phenomena, but our challenging role never becomes useless.

The energy of the laser fascicle focusing on the processing material takes the material in four steps:

a) From the photons - to the increasing jump electrons;

b) From the electrons jumping from the base layer to the rising layer - the electronic cloud which is distorted after several electrons have jumped and been brought back;

c) From the electronic cloud - the nucleus of the atom which vibrates after several distortions of the surrounding electronic cloud;

d) From a single living atom - to the local masses of vibrating atoms of the material that come in contact with the photonic fascicle through elastic phones and locally plasma thermal movements.

If distinct spectral lines are identified against the background of uninterrupted spectrum produced by the high local temperature present at the processing site, new assumptions of synthesis under quantum must be confirmed in the processing of both types of metals (copper and aluminum). Such distinct spectral lines and the identification of identical electrons in the processing of different materials resulted in the return of them from the energetic layer which they jumped by increasing by 14-27.

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