Deformation – photon effect. at deformation of the substance intensifies emission of the photon gas – electromagnetic waves

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Abstract: *This report presents the photonic effect in the deformation of matter by amplifying the emission of hydrogen gas by electromagnetic waves. Presents real experimental facts which upheld the principle (law) that the substance of deformation (pressure and tension) intenifitsirat appointing photon gas (electromagnetic waves. End the final justification of substances in treatment (stress, strain and friction) substances form of electromagnetic matter and emphasis.*
KEYWORDS*: ATOM, DEFORMATION, ELECTROMAGNETICWAVES, OSCILLOGRAMS, PHOTON GAS, PHOTON EFFECT.*

1. *Introduction*

Based on a model of the atom – fig. 1 where the atom hasn't nucleus and surrounding orbiting electrons. And fig. 2 – different by theory and experiment. As the passage of on electron from a higher to a lower orbit for the time $\tau \approx 10^8$ of transition, part of the kinetic (magnetic according to JC Maxwell) its energy is converted into photon energy as a photon, which is under the Larmyur since 1895 with a capacity of N and energy W_f, follows

$$N = \frac{dW_f}{d\tau} = \frac{2}{3}.\frac{q_e^2 \times a^2}{c^3} \quad (1)$$

$$W_f = N.\tau = \frac{2}{3}.\frac{q_e^2.a^2}{c^3}.\tau = h.v \quad (2)$$

Where: q_e is the electric charge of the electron; a – acceleration of the electron; h – Planck's constant; v – frequency of the electromagnetic wave of the photon; c – velocity of photon (light).

When on the electron in an atom falls photon – c, the electron absorbs the photon energy W_f and increased kinetic (magnetic) its energy, the electron moves to a higher orbit 3.

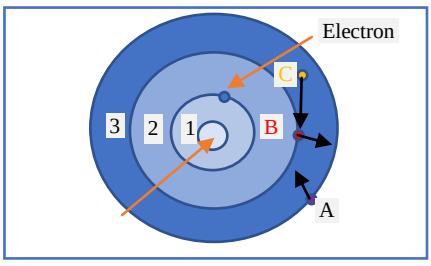

Fig. 1. *Model of the atom.*

As deflection and absorption, radius of the orbits change most their valence electrons, they emit or absorb photons.

As deflection (tension or pressure) of some of the atoms and molecules are reduced radius of elliptical orbits, so they emit photons.

Based on written by Isaac Newton in "Optics …" from 1704, which is exposed in questions 1 to 31, with synthesized form, were described as experimental facts:

"All bodies emit and absorb light."

"The changing of Bodies into Light, and Light into Bodies …"

"… is very conformable to the Course of Nature …"

"Light is a flow of small bodies, which move at velocity."

In modern terminology, these Newtonian laws for the system K state:

"All substantial forms of matter, electromagnetic emission and absorption field forms (electromagnetic waves – photons) of electromagnetic field."

"The substantial forms of electromagnetic matter convert into a field form, and the field form of electromagnetic matter into a substantial form."

"These conversions are ascertained through experiments, i.e. they are natural (empirical) laws."

"Light is a flow of elementary particles – photons that continuously moving velocity c."

Fig. 2. *Different by theory and experiment.*

These attempts facts described by Newton proofs that matter in nature only make electromagnetic energy field and in physical form [3].

This proof of Newton is confirmed by D. Kirchhoff in 1860 without citing Newton Kirchhoff based on experimental data sets following law:

"All bodies emit and absorb energy (electromagnetic waves – P.P.` Note.)", as the ratio of the emitted and absorbed energy depends on its frequency and temperature of the body, but does not depend on the type of body."

I.e. experimental evidence described by Newton and Kirchhoff proved conclusively, because experience has probative force majeure, and the experimental (empirical) laws of logic says that matter (mass) of all natural resources (objects, events and processes) is only electromagnetic nature – is electromagnetic matter (mass m), which is constantly changing both in terms of quantity i.e. $m \neq cons$, and the structural conditions of the substance in a form field and vice versa.

In this case, it follows that matter is homogeneous structure of unknown nature (properties) source (primary) resource. Resource is unknown experimentally established fact because it cannot determine experimentally because it can occur as a separate reality, without being in the form of spatial structure that is not in the form of a natural feature of matter. A matter with smaller amounts of the output is called elementary particle elementary particles, respectively. In this sense, elementary particles, as proposed by C. Heisenberg accepted in physics are:

- Homogeneous in nature;
- In the form of substances and field forms;
- Can become afield of substantial forms and vice versa.

Since matter and energy are inseparable from one another, it follows that the energies are only electromagnetic nature, i.e. only electromagnetic matter and electromagnetic energy in different structural states.

This fact can be shown under the approach of Newton, as follows:

The matter (mass) *m* of electromagnetic waves moves with

velocity of light *c*, a pulse $\overrightarrow{P_c}$, mass *m* and velocity *c*, i.e.

$$\overrightarrow{P_c} = m.\vec{c} \quad (3)$$

$$m \neq const$$

$$c = const$$

$$\frac{dc}{dt} = o$$

When electromagnetic matter (mass) *m* of electromagnetic waves moves with velocity $\overrightarrow{P_c}$ a the derivative of the pulse corresponds electromagnetic force

$$\vec{F} = \frac{d\vec{P}}{dt} = \frac{dm}{dt}.\vec{c} + \frac{d\vec{c}}{dt}.m = \frac{dm}{dt}.c + 0 = \frac{dm}{dt}.\vec{c} \quad (4)$$

$$F \rightarrow [N] = [J.m^{-1}] = \frac{energy}{distance} = \frac{W}{r} \quad (5)$$

The energy *Dw*, which gives electromagnetic force *F* of the object on which acts along the distance $d\vec{r} = \vec{c}.dt$, i.e. for time *dt* is

$$dW = \vec{F}.d\vec{r} = \frac{dm}{dt}.\vec{c}.\vec{c}.dt = dm.c^2 \quad (6)$$

$$W = \int_0^m dW = m.c^2 \quad (7)$$

Because electromagnetic substance can be transformed into an arena and vice versa, follows the law

$$W = m.c^2 \quad (8)$$

Is true both for field and the substantial form of the electromagnetic field. This is due to the definition in 1704 of Newton, that matter is electromagnetic [3].

Thew law for W is a direct consequence of Newton`s mechanics in "The Principles …" of 1687 and the experimental evidence described by him in "Optics …" of 1704, so this law should be treated here as a classic.

2. *Exposure*

2.1. EXPERIMENTAL FACTS WHICH UPHELD THE PRINCIPLE (LAW) THAT THE SUBSTANCE OF DEFORMATION (PRESSURE AND TENSION) INTENIFITSIRAT APPIONTING PHOTON GAS (ELECTROMAGNETIC WAVES)

These experimental facts are realized in Technical Parks and Zones, Business Incubators and clusters in Bulgaria at the Base of Industrial Competitiveness [4]. But analysis of trends and opportunities for technological development on photon effect in SMEs based in intelligent, innovative and sustainable industry [5, 6, 7].

In machining and friction of metals

In figure 4 is an oscillogram of intensified waveforms emitted electromagnetic wave (photon gas) in a sample of steel R6M5 with hardened drill [1]. Its temperature varies from 29,7 to 116,4˚C. the pattern of attempt is shown in figure 3.

Fig. 3. *Experiment.*

In figure 4 because deformed surface atoms and molecules is given as oscillogram of the intensified electromagnetic fields (photon gas) friction on the back of the drill, which rotates in a socket pierced steel R6M5, which is an oscillogram in figure 5.

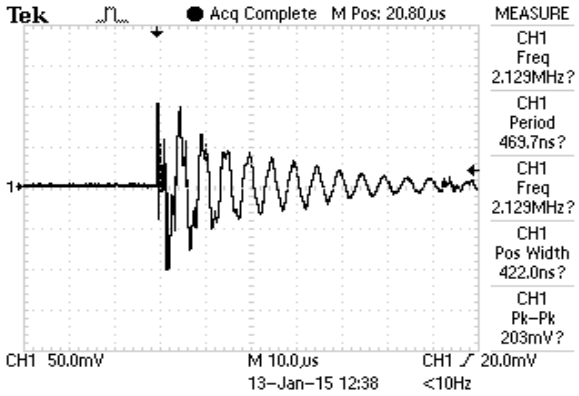

Fig. 4. *Different by theory and experiment. oscillogram of intensified waveforms emitted electromagnetic wave (photon gas) in a sample of steel R6M5 with hardened drill.*

Apart from these experiments that are repeatable experience is legal strength of the still tube to rupture and tear in time and measured intensification of gas emitted photon (electromagnetic waves), figure 5.

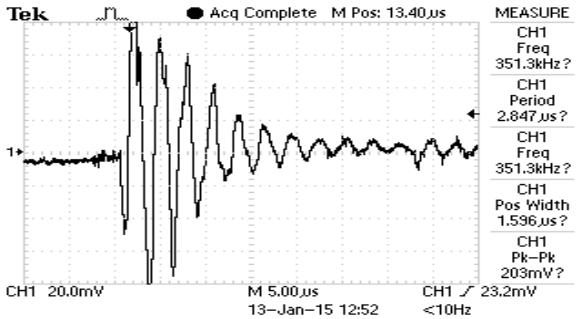

Fig. 5. *Oscillogram, which rotates in a socket pierced steel R6M5.*

Of the many attempts can establish the following conclusions:

- At a constant speed of receipt of the drill, but increases its speed, increased amplitude and frequency of electromagnetic waves;
- At constant speed drill, with increasing feed rate of the drill, increased the amplitude and frequency of electromagnetic waves.

The conclusion from these facts is that ***the increase in the intensity of the emitted waves (photon gas) is proportional to the power, which drives the grill***.

Conclusion about 1

Because the mechanism of the effect of emission and absorption of photons (photon gas – electromagnetic waves) are generally the same for all the atoms and molecules that form different substances, including the living matter (living substances of flora and fauna), it follows that in during the deformation process (pressure and tension) of all substances occurs intensification of emission of photons – electromagnetic waves.

Justification of substances in treatment (stress, strain and friction) substances form of electromagnetic matter

Starting point for justifying (proving) the effect of heating the substance of the photon gas (electromagnetic waves - light) is written by Issac Newton in his "Optics …" from 1704 and 1716, which according to states:

"In two inverted high cylindrical container of glass are placed (suspended), two small thermometer without touching the walls of the vessels and the air was removed from one of them. These vessels, made thus moved from a cold to a warm place. The thermometer in the vacuum vessel has increased his testimony also as fast as the thermometer, which is not in a vacuum. When

containers are returned to cold, the thermometer in the vacuum vessel reduce testimony also as fast as the other thermometer. Is heat from warm room conveyed through the vacuum of the vibrations of very fine from the air (medium) that after the withdrawal of air remains in the vacuum? Are the vibrations of this medium in the hot bodies that determine the intensity and retention of heat from them? Are not hot bodies that transmit heat to cold bodies through the vibration of the medium in the direction of them to neighbouring cold bodies? And is not this medium extremely tenuous and subtle than air and extremely flexible and agile? Is not easier penetration (spreading) in all the bodies? And it does it spread all over the sky?"

From this trail by Newton in 1818, the conclusion that the gas molecules are not carriers of the dynamic form of heat, and the heat carriers is the photon gas, which are molecules that pursuant M. Planck emit photons, which a density of electromagnetic (photon) energy

$$W_f = \sum W_{f_{ij}} = h.\sum_{i=1;j\neq 0}^{i=n;j<10^{20}\,Hz} v \quad (9)$$

Where: *h* is Planck`s constant, v_{ij} – frequency of the photon, as v_i a number of photons, and v_j – are number of photons with different frequency *j*.

From the presented above experimental facts, as described by Newton`s most categorically rejects the assumption that the molecules are carriers of the dynamic form of heat and affirm (with experimental facts) law that heat is carried by the photon gas, which creates pressure which gives rise to power

$$\overrightarrow{F_f} = \frac{\vec{P}_f}{\tau} \quad (10)$$

$$\overrightarrow{F_{f\tau}} = \frac{\vec{P}_{f\tau}}{\Delta t} = \frac{W_f}{\Delta r}.\overrightarrow{c_0} \quad (11)$$

$$\Delta r = c.\Delta t \quad (12)$$

This force of the photon gas powered gas molecules with mass m_M at T up to velocity v.

It should be noted that all the atoms (molecules) continuously, but periodically emit and absorb photons of energy $W_f = h.v$, time τ, and when emit gas given recoil forces, and in photon absorption occurs compressive force. These forces provide the movement of molecules. They are proportional to the temperature (density of the photon gas) between molecules. This fact is explained in modern thermodynamics [2, 8].

Or significant weakness – incorrect of thermody-namics this is that it ignores the experimental fact that is known to mankind for centuries that electro-magnetic waves – photons (light from the sun) are an expression of heat (thermal energy), i.e. that photons are thermal energy, which is something material, according to the modern idea that photons are a form of electromagnetic field matter (electromagnetic elementary particles), and which can be converted into tangible form of electromagnetic matter.

2.2. EMPHASIS

Compelling evidence that the nature and the winner of heat energy $Q = W_t$ are electromagnetic waves, described as a photon gas has experienced the following fact:

It is known that heat energy Q for space heating (room) is hot water (liquid or vapor forms) that passes through the radiator heating. But heat energy, which heats the premises isn`t in the form of water – water molecules, but in the form of electromagnetic waves (photon gas), which due to uptake by atoms and molecules accelerate air molecules – heated room air.

First. ***Transfer of radiant electromagnetic energy emitted by water molecules to the walls, radiator and they become temperature T_p, but not absorb water molecules, i.e. molecules leave the water.***

Second. ***Heat energy Q, obtained from the radiator is in the form of a photon gas and the law of Fourier in 1822, is transferred to the outer surface of the radiator temperature T_p, T_p due to temperature, according to the law of Stefan – Boltzmann is excreted in with room temperature $T_0 < T_p$ without any transfer of a water molecule, but only the photons of the photon gas.***

This room radiated heat energy from the Q_p unit area of the radiator temperature T_p, the law of Stefan – Boltzmann`s is

$$Q_p = k_\sigma.\sigma.(T_p^4 - T_0^4) \quad (13)$$

Where: k_σ is constant.

And the room appears photon gas with density of photon energy W_f, which is in direct contact with the objects in the room and molecules that are accelerated to higher speeds while absorbed photon energy and convert is into magnetic (kinetic) energy of molecules. Under these conditions, the objects, including molecules continuously emit photons absorbed photons under the laws of Newton (1704) and Kirchhoff (1860), the temperature T_p which corresponds to the photon gas is equal to the temperature objects T_0 (ambient temperature in the room). ***From descriptions of experimental facts, it is obvious that the heat Q is not supported by the molecules of the substance but the molecules emit only photons, i.e. broadcast portions of heat energy in the form of photons or photons are the essence thermal energy.***

With radiation, then law of Stefan – Boltzmann can be explained relict radiation, which is energy density of 0,25 EV cm^3, rather than big bang theory.

In conclusion we may set

Part of the atoms and molecules of substances under pressure, tension and friction emit photons, some of which it heated and part radiates off as a photon gas – electromagnetic energy, which is heat.

2.3. OTHER FACTS WHICH PROVE THAT SUBSTANCES EMITS PHOTONS

A. Since ancient times it is known that friction between two wooden objects (substances) results in heat and getting them to fire, i.e. heat and fire are the product of the photons that come from the fire, because the tree is made up of atoms and molecules from the surface layer to deform.

B. In the collision between bodies may be obtained dense photon gas (spark or flame). Such facts are:

- Collision between iron and flint to ignite the tinder and it ignites fire.
- Rubbing the meteors in the air, following which they burn (shooting stars) due to consequent dense photon gas.
- Collisions between meteors and meteorites and the Earth melted part of the earth, due to the dense photon flux generated by the deflection on impact.
- Crushing and expansion of the substance (living tissue) of the heart generate photons, respectively, electric potential, which is measured by ECG. Etc.

3. Conclusions

- During the process of pressure or tension (deformation or rupture) of mineral substances and living matter and

intensify the radiation of photons – electromagnetic waves. This is the deformation-photon effect.

- In the entire universe there photonic gas – electromagnetic waves – has no place in the universe without photon gas.

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