

POSITIVE LIGHT MATTER

Byungwhan Kim

Department of Electronics Engineering, Sejong University, Seoul, Korea

Abstract- Light matter is typically composed of bright matter embedded in gray one as illuminated with an electron beam. New chemical data specific to two types of light matter is presented. The image of light matter demonstrated massive property of bright matter. The atomic percents (A%) of chemical elements measured for bright matter are 77.69 C, 3.42 O, 0.81 S, 15.31 Ta, and 2.77 Re. The weight percents (W%) are 21.74 C, 1.25 O, 0.62 S, 64.45 Ta, and 11.93 Re. The other data measured for the gray matter is 73.88 C, 3.47 O, 0.71 S, 16.94 Ta, and 5.0 Re in the A% and 17.88 C, 1.12 O, 0.43 S, 61.64 Ta, and 18.93 Re in the W%. The dominance of C and Ta in the A% is the same as the reported ones for single large light matter. The data revealed that bright and gray matter are much different in the atomic and weight compositions. The massive bright matter with higher C was matched to the proton as supported by the proton beams formed by laser light. The gray matter containing more Ta and Re was matched to the positron typically observed in laser light experiments. With this match, it is known that light matter is comprised of protons and positrons. Therefore, light matter is positive in charge as opposed to the negative electron. With this new finding, a new atomic model was proposed and it is composed of a nucleus, light-emitting structure (LES), and electron-occupying region (EOR), each represented by the proton and neutron, proton and positron, and electron, respectively. Here, the LES is a structure packed with both positrons and protons.

Keywords – Light; Matter; Photon; Positron; Proton; Chemical Elements; Laser; Sun; Light-Emitting Structure; Bohr Model; Atomic Model

I. INTRODUCTION

It has been demonstrated that light matter is easily collected with one drop of water by simply exposing it to the sunlight or laser light [1]. A few dozens of images regarding the matter of sunlight have been reported [2-6]. Of them, the report [5] presented the greatest number of low resolution images of light matter selected from the images taken for about six months. The dried water region was found filled with various constructions made up of light matter [3, 5-6]. Apart from the light matter leaving tiny one [3], other distinct straight or curved motions of light matter were reported [5]. Definitely, all the reported images are enough to convince that light is matter.

It was commonly observed that light matter consisted of two types of matter [3-6], bright matter and sticky gel-like matter. In non-water regions, the bright matter was embedded in the gel matter and this coupled matter structure was termed “photon gel” [7]. Images of a number of photon gels were reported [1-6]. As stated [4, 6], the bright matter matches the discrete photon and the gel matter then becomes the entity of the entanglement principle of quantum mechanics of light.

Chemical compositions of light matter showed that light matter is composed of C, Ta and Re [4]. Another O was further detected [6]. The identified chemical elements played a critical role in understanding electromagnetic energies of light matter [6] while strengthening matter property of light. Meanwhile, chemical compositions of ions of the sun plasma included other chemical elements such as B, Na, Cl, K, Ca, and etc. [4, 6]. These measurements signify that an atom is composed of various chemical elements, eventually leading to the concept of “chemical atom” [4, 6].

The particle of light matter was once reasoned to be the positron [8] equated as a hot electron, positron and electron [3, 4], or positron with positive charge [6]. In the earlier models, the positron was regarded as the hot electron.

However, this is wrong because both electron and positron are opposite in charge. Meanwhile, it is unclear how massive particles typically observed in the laser experiments [9-11] are related to light matter. Another concern is the relationship of a proton beam formed with laser light [12-14] with the massive particle or light matter. This study aims at clarifying the aforementioned unresolved concerns.

II. PARTICLES OF LIGHT

Fig. 1 shows an image of a photon gel of the sun light. It is composed of relatively bright matter and gray one. The bright matter such as the one numbered 1 is separated from the photon gel as it hits the wafer. The bright matter numbered 3, an aggregate of multiple bright matter, is placed in the outer zone of the gray matter. All these observations reveal that the bright matter matching the theoretical photon is massive, and that they are initially embedded in the gray one before the collision. The latter property was observed in a number of light matter images [2-6] and the coupled matter structure represents the photon gel [7]. Besides the photon gel, light matter was found to exist as a single, large one such as the one numbered 4 placed at the top right [4, 6]. The chemical elements of the single light matter reported in the work [4] are C, Ta, and Re. Another O was detected as a similar matter was measured [6].

The two black matter numbered 5 and 6 belong to an ion aggregate such as those reported ones [4, 6]. The ion aggregates were found to have B, C, O, Na, Cl, K, Ca, etc [4, 6].

As stated earlier including the works [3-4, 6], the bright matter matches the theoretical photon trapped in the gray matter, which is typical of the photon gel. In the context of quantum mechanics of light, the gray matter then becomes the tangible entity of the entanglement principle of the related quantum mechanics. Also, it is the tangible entity of the

Publication History

Manuscript Received : 10 February 2015
Manuscript Accepted : 20 February 2015
Revision Received : 25 February 2015
Manuscript Published : 28 February 2015

“local hidden variable theory”, proposed to point out incompleteness of the quantum mechanics [15].

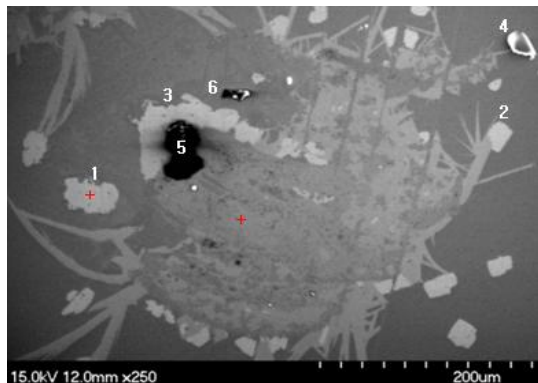


Fig. 1. Matter of sunlight.

Chemical elements of light matter: The atomic percents of chemical elements composing the bright matter “1” measured at the point marked with the “+” with the energy-dispersive X-ray spectroscopy (EDS, HITACHI:S-4700) are 77.69 C, 3.42 O, 0.81 S, 15.31 Ta, and 2.77 Re. The unit of each numeric number is “%”. As the S least in the atomic percent is excluded, the remaining 4 elements are consistent with the reported one [6], but differ in the atomic percent. In fact, the S is little likely to be one of the constituent elements of light matter because it was not noted in other measurements such as those ones [4, 6]. This S is suspected to belong to the ion. The weight percents are 21.74 C, 1.25 O, 0.62 S, 64.45 Ta, and 11.93 Re.

The other measurements carried out in the gray matter at the point marked with the same red “+” are 73.88 C, 3.47 O, 0.71 S, 16.94 Ta, and 5.0 Re. Comparison with the earlier measurement reveals that the gray matter contains less C and more Ta and Re. Therefore, it is disclosed that both types of light matter are distinguished from each other by the differences in the atomic percents. The weight percents are 17.88 C, 1.12 O, 0.43 S, 61.64 Ta, and 18.93 Re. The chemical element data reporting here is meaningful because it provides data specific to each matter type unlike the reported ones [4, 6] measured on the single large matter, suspected to be composed of the two types of matter.

Proton and positron as elementary particles: The gray matter has more transition metallic elements than the bright one. This signifies that it is capable of absorbing more electric energy form the externally supplied electromagnetic energy. In view of the size, the particle comprising the gray matter is unmeasurably small like the electron. Considering these features, the particle matches the positron, typically observed in laser-related experiments [9-11]. Currently, the positron is said to be created or generated by the laser light. This is wrong because it is just the particle comprising the light matter of laser as pointed out in the works associated with the sunlight matter [4, 6].

By contrast, the size of the bright matter is fairly large enough to count. The brighter surface also indicates that it absorbs more heat energy as convinced from the higher atomic percent of the C. As stated in the work [6], the C is the most effective in transferring heat energy because of its highest thermal conductivity as it becomes the diamond, one of the C allotropes. The conversion of initially dark C into the

bright C is well expected in the environment of the sun plasma where the atom is subject to an extremely high temperature with the light structure in it to be defined later to a high pressure. Therefore, the bright matter is distinguished from the gray matter from the view point of enhanced absorption of thermal energy and bigger size. Its massive property was already noted in Fig. 1. It is well known that the mass of a proton is about 1836 times greater than the electron or positron. Therefore, the massive bright matter is matched to the proton as supported by the observed massive particles [9-11] and formation of proton beams [12-14]. Therefore, it is known that the bright and gray matter comprising light match the proton and positron, respectively.

It must be noted that both proton and positron have the same chemical elements (C, O, Ta, and Re), but are different in the atomic concentrations. This invalidates the earlier argument [6] that the C belongs to only the bright matter corresponding to the proton. Meanwhile, it is known that the division of light matter into the proton and positron is solely determined by the relative amounts of the atomic percents as noted earlier. Meanwhile, both positron and proton have the positive charge of $1e^+$. This means that the light matter is positive in charge as opposed to the negative electron energy. Therefore, the light matter possesses a positive energy.

Scientists engaged in the production of proton beams with the laser light attributed the proton source to hydrocarbons existing as a contaminant on the rear surface of a target foil [12]. The inappropriateness of this explanation is able to be convinced as referred to the proton matched to the massive bright light matter. In other words, the proton of the proton beam is just the constituent particle of light matter, not generated from other source. Meanwhile, electron and positron pairs were observed in the front side of the target foil [12]. As referred to the positron composing light matter, it is now able to understand that the positron in the pair belongs to the light matter. As is addressed subsequently, the electron appearing with the positron belongs to the negative surface plasmon carriers, excited through the absorption of the positive charge of the positron.

The wrong understanding on the source for the production of proton beams is equally applied to the photosynthesis process or photoelectric effect theory as pointed out in the work [6]. In fact, light matter provides C, O, and electromagnetic energy required for the photosynthesis. This invalidates the current photosynthesis process saying that the C and O are supplied from the air. The glucose, the direct product of the photosynthesis, matches the light matter constructions left in the dried water region [3, 5-6]. Likewise, the photoelectric effect theory becomes groundless because light is matter comprised of the proton and positron with positive charge. As stated in the work [6], the measurement of electric current is enabled by the transfer of the positive charge of light particle to the negative surface plasmon carriers distributed in the metal plate in a vacuum tube. The excited surface plasmon carrier is termed “exciton” in literatures. This means that there is no emission of electrons from the metal plate by the laser light injection, the core concept of the theory. The wrong photoelectric effect theory is due to the misunderstanding of light and neglect of the negative surface plasmon carriers. This was detailed in the work [6].

It was indicated that the current photon-related phenomena including the source for the positron or proton were wrongly interpreted and understood. In order to keep the wrong photon, in fact, the related science and scientists had no choice but to interpret the positron as produced or created while attributing the source for the proton to the contaminant, the source for C and O to air, the source for electron to the metal plate. All these man-made efforts originate from the wrongly defined photon. To avoid this, the current photon with no mass and charge must be replaced promptly by the proton and positron with mass and positive charge.

Light matter and its properties are able to be widely used or explored to manufacture various energy storage devices, absorber of electromagnetic energy, positive electrodes [16], solar cells, or cancer killers. In the context of the last application, the positron and proton have already been in use for the metastasis of cancer and its killing, respectively.

III. ATOMIC MODEL

Light Matter-Emitting Structure: Atomic models were once proposed to explain the generation of light matter from an atom [4, 6, 8]. The model [4, 8] suggested that light matter is emitted from the electron orbit placed in the atom. The emission of the positron from the electron orbit is not logical because they are opposite in charge. This was partly resolved by replacing the electron orbit with the positron one in the latest model [6]. However, this model can only account for the emission of the positron from the orbit, not both positron and proton identified here. Therefore, the positron orbit needs to be replaced by the positron and proton orbit.

An orbit typically refers to a path along which a particle moves. This cannot adequately represent a tangible structure in the atom from which light matter is emitted. Therefore, the orbit is replaced by a light-emitting structure (LES) packed with protons and positrons. The resulting new proposed atomic structure thus includes a nucleus, multiple LES, and the other regions except for the preceding two. The matter comprising the third region is mostly engaged in the production of electrons. As this is considered, the model structure is composed of a nucleus, LES, and electrons. In the case of multiple LESs, they are likely arranged in an atom in the circular, closed fashion around the nucleus as the arrangement of planets around the sun. Due to the positive charge of the LES, there exists a gap between any two LESs adjacent to each other. These gaps become the regions occupied by the electrons and the electron-occupying region is abbreviated as "EOR". As this new term is incorporated, the atom has the structure comprised of a nucleus, LES, and EOR. From the particle point of view, the model has protons and neutrons, protons and positrons, and electrons in the nucleus, LES and EOR, respectively. It is thus revealed that the particles involved in the atom are proton, neutron, positron, and electron.

The positive charge exerted by the nucleus and LES are balanced by the negative one by the EOR. In this way, an atom maintains its neutral charge. This is in contrast to the current interpretation that the neutral atom is attributed to the positive nucleus and negative electron. Meanwhile, the EOR has the same spatial configuration as the LES. This indicates that both LES and EOR alternate together across the atom.

Comparison with the Bohr Model: Conceptually, the critical energy of the LES matches the energy associated with the stationary electron orbit proposed in the Bohr model [17]. In the Bohr model, the electron is assumed to stably travel the orbit and absorb an externally supplied energy with no radiation. However, there are no travelling electrons in the proposed model. Instead, the LES keeps absorbing the supplied energy and as the absorbed energy exceeds a critical one, it then emits light matter. This indicates that the LES is dynamic as opposed to the stationary electron orbit. The possession of the electromagnetic energy by the light matter was already explained in terms of the chemical compositions. Meanwhile, the emission of light matter from directly the LES is in sharp contrast with the one hypothesized to occur as an electron jumps from a higher orbit in energy state to a lower one.

It is still unclear how multiple LES are spatially arranged in the atom as well as a three dimensional shape of the LES. Images for clarifying these concerns including those mentioned in [6] are in preparation.

IV. CONCLUSIONS

In this work, new chemical data specific to the two types of light matter were presented. The data showed that both matter are different in atomic and weight compositions. The two matter well matched proton and positron typically observed in laser experiments. This indicates that light matter is positive in charge composed of the proton and positron. This finding enabled the proposition of a new atomic model containing the LES packed with protons and positrons.

REFERENCES

- [1] B. Kim, Photon collecting method, 2014. (patent in application).
- [2] B. Kim, Visible Photons and Energy Orbits, pp. 75, 77-79, HongReung Science Publishing Co., ISBN-979-11-5600-309-0, 2014.
- [3] B. Kim, "Micron-sized photons of the Sun," IJLRST 3(3), 122-126, ISSN: 2278-5299, (2014) .
- [4] B. Kim, "Wrong model of photon," IJLRST 3(3), 54-60, ISSN: 2278-5299, (2014).
- [5] B. Kim, "Collection of photons," IJLRST 3(4), 1-11, ISSN: 2278-5299, (2014).
- [6] B. Kim, "Latest on light matter," IJLRST 3(6), 45-51, ISSN:2278-5299 (2014).
- [7] B. Kim, Visible Photons and Energy Orbits, pp. 27, HongReung Science Publishing Co., ISBN-979-11-5600-309-0, 2014.
- [8] B. Kim, Visible Photons and Energy Orbits (First Edition), pp. 115-117, HongReung Science Publishing Co., 2014.
- [9] D. L. Burke et al., "Positron production in multiphoton light-by-light scattering," Phys. Rev. Lett. 79, 1626-1629 (1997).
- [10] C. Gahn et al., "Generating positrons with femtosecond-laser pulses," Appl. Phys. Lett. 77, pp. 2662-2664 (2000).
- [11] H. Chen et al., "Relativistic positron creation using ultraintense short pulse lasers," Phys. Rev. Lett. 102, 105001 (2009).
- [12] Lawrence Livermore National Laboratory, "The amazing power of the petawatt," S & TR, 4-12 (2000).
- [13] Lawrence Livermore National Laboratory, "Using proton beams to create and probe plasmas," S & TR, 11-16 (2003).
- [14] T. Bartal et al., "Focusing of short-pulse high-intensity laser-accelerated proton beams," Nature Phys. 8, 139-142 (2012).
- [15] A. Einstein, B. Podolsky, and N. Rosen, Can quantum-mechanical description of physical reality be considered complete?, Phys. Rev. 47, 777 (1935).
- [16] B. Kim, Light matter as a positive electrode, 2015. (to be applied for patent)
- [17] N. Bohr, "On the Constitution of Atoms and Molecules, Part I," Philosophical Magazine 261-24 (1913).