

New Discovery of the High-Energy Particle Amaterasu (Cidtonium) and Theoretical Derivation of Its Frequency, Mass, Energy, Speed, etc., in the Universe 2026

B) New Theoretical Derivation of Its Frequency, Mass, Energy, Speed, Constant, etc

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If a proposed introduction is to be offered for the derivation of the physical parameters of the Amaterasu particle, it should be said that the ancients regarded the universe as composed of four elements. With the advancement of science, these substances came to be understood as composed of molecules, molecules of elements, elements of atoms, and atoms of electrons, protons and neutrons. This progression has continued, and subatomic particles such as protons are formed from photons — in other words, the photon is their constituent unit. However, according to the characteristics and information obtained, the Amaterasu particle is certainly smaller than a photon, which is termed, in this context, the sub-photon, or Cidtonium.

It has been noted in previous papers that all particles, from the smallest to the largest, possess rotational motion; this means that everything from a single photon to galaxies possesses helical motion. Given that the sub-photon is smaller than the photon and is the photon's constituent, and that the origin of the photon's helical motion lies in the sub-photon, it may therefore be said that sub-photonic particles possess the following basic principles:

- I. The motion of sub-photons is a nested rotational (helical) motion.
- II. Their motion is a closed rotational motion; upon the disintegration of photons, these particles exhibit a wave-like motion.
- III. The radius of rotation of sub-photonic particles may range from approximately zero up to a maximum equal to the radius of the photon.
- IV. Given the existence of the closed rotational motion of these particles within the photon, these particles will certainly also possess a frequency.

parameters of these particles may be calculated:

$$v = r\omega \Rightarrow \omega_{Cid} = \frac{v_{Cid}}{r_p} = \frac{4.8 \text{ C}}{1.2 \times 10^{-17}} \Rightarrow \omega_{Cid} = 1.2 \times 10^{26} \text{ Rad/s}$$

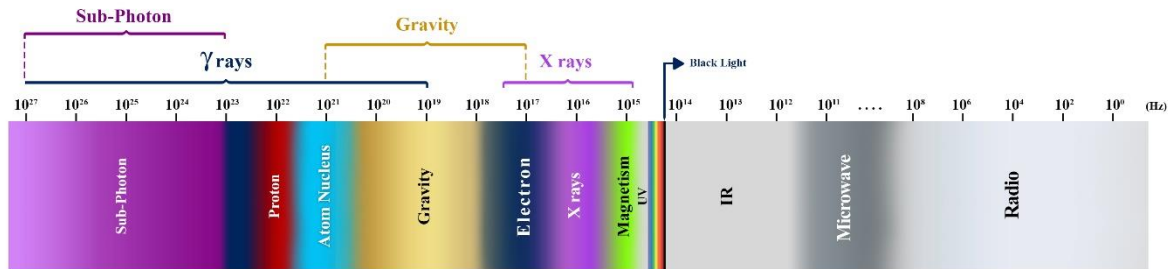
$$f = \frac{\omega}{2\pi} \Rightarrow f_{Cid} = \frac{1.2 \times 10^{26}}{2\pi} \Rightarrow f_{Cid} = 1.9 \times 10^{25} \text{ Hz}$$



In which, v is the speed of Cidtonium — that is, the maximum photon speed — r is the maximum radius of rotation of the Cidtonium — that is, the photon radius — and f is the frequency of this periodicity. We have thus, so far, arrived at an approximate derivation of two valuable parameters, namely the angular speed and the photon frequency.

Notice:

Considering the electromagnetic spectrum, it may be observed that all waves possess a frequency tolerance specific to themselves. In effect, Amaterasu — or Cidtonium — will possess a frequency tolerance between 10^{23} and 10^{27} Hz.



It was stated in previous papers that, owing to the density of Black Holes, they must be composed of sub-photonic particles. We therefore make use of this important point here, taking the density of the Black Hole to be equal to the density of Cidtonium. Accordingly, we have:

$$\rho_{Cid} = \rho_{BH} = 10^{18} \text{ Kg}/\text{m}^3$$

$$n = \frac{\rho_{Cid}}{\rho_p} = \frac{10^{18}}{10^{15}} = 10^3$$

$$m_{Cid} = \frac{m_p}{n} = \frac{1.64 \times 10^{-36}}{10^3} \Rightarrow m_{Cid} = 1.64 \times 10^{-39} \text{ Kg}$$

Here, by using n — that is, the approximate number of sub-photons within a single photon — and m , the mass of the photon, we arrive at another important parameter, namely the mass of the Cidtonium. Although the world of Cidtonium within the structural space of the photon is not identical to the world of the photon within the structural space of the electron (as their respective constituent unit), what is certain is that the Cidtonium released from the photon, like the photon released from the electron, likewise moves helically, and therefore possesses similar characteristics. A law analogous to Planck's law must therefore also hold for the energy of this particle, although with a different constant — since Planck's constant can no longer remain unchanged as the particle's speed and mass change from photon to Cidtonium. We now proceed to derive the energy by two methods, so as ultimately to determine the constant pertaining to the sub-photonic world for the derivation of their energy.



$$E_{cid} = \frac{1}{2}mv^2 = \frac{1}{2}(1.64 \times 10^{-39})(4.8C)^2 = 1.7 \times 10^{-21} J$$

$$E_{cid} = h_{cid} f_{cid} \Rightarrow h_{cid} = \frac{1.7 \times 10^{-21}}{1.9 \times 10^{25}} \Rightarrow h_{cid} = 8.9 \times 10^{-47} Js$$

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