Explain the photoelectric effect and derive the Planck constant from the perspective of volatility

Demin Liu

(Quxian Fire Brigade，Dazhou635000，China ,email：960954893@qq.com)

Abstract: When the photoelectric effect was discovered, it was found that only photons could explain the effect, so everyone thought that light was for particles.However, if light is a particle, it cannot explain the independent propagability of light，the particle velocity is superimposed with the emission source, and the loss of light is to loss the photon mass or the velocity.In order to solve these contradictions, I try to explain the photoelectric effect from the volatility of light.

Key words: Wave-particle duality error； Quantum mechanical error； Photons do not exist； New explanation of the photoelectric effect

When the frequency is greater than a certain limit, the amplitude of the light waves of different frequencies does not change again, and the amplitude is equally equal, which is a fixed value. Light has a saturated amplitude and is basically fixed (atomic diameter).Because the electron orbit and its space in matter are limited, the vibration range of electrons cannot be infinitely large and cannot exceed the atomic diameter.With the increase of the energy of the material, the vibration frequency of the electrons in the material becomes faster, and the amplitude of the electrons reaches the maximum in the limited space, reaches saturation, and is basically stable, otherwise the electrons will break through the orbit from the control of the core, when the material decomposes and forms new matter.So the amplitude of the light above some frequency is basically a fixed value.

The light wave is the high frequency Etheric wave emitted by a single electron and is the fluid medium wave. A single electron wave is a subwave, and countless subwaves constitute a beam. Because the amplitude of the subwave is a fixed value, the wave intensity of the optical wave is only proportional to the frequency square, as Light intensity formula

$$I = \frac{1}{2} A_1^2 c\rho\omega^2 = 2\pi^2 A_1^2 c\rho v^2$$

Here "A_1, c, ρ" are all fixed values, "v"is the frequency. Order $2\pi^2 A_1^2 c\rho = k_1$, then

$$I = k_1 v^2$$

Here we stipulate that a wavelength of the wave is a quantum of light, and then the number of photons passed per unit time or contained in the unit length is proportional

to the frequency, there are

$$n = k_2 v$$

And because the energy of the light wave per unit length is directly proportional to the strength of the light wave, there are

$$E_u = k_3 I$$

So for the energy of each photon

$$E = \frac{E_u}{n} = \frac{k_3 \bullet k_1 v^2}{k_2 v} = \frac{k_3 \bullet k_1}{k_2} v$$

Order $\frac{k_3 \bullet k_1}{k_2} = h$, then

$$E = hv$$

Here “h” is the Planck constant.

Here we call the light quantum the periodic energy son. Each periodic energy son has an electric field pulse, because the amplitude is fixed, this electric field pulse size is only frequency dependent. When the electric field pulse ＞ the electronic escape threshold (electric field force).

In summary, We derive the Planck constant and prove the photoelectric effect based on the volatility of the light, and also completely solve the contradiction brought by the particle property, and falsify the photons.

references：

1. https://baike.so.com/doc/784631-830187.html