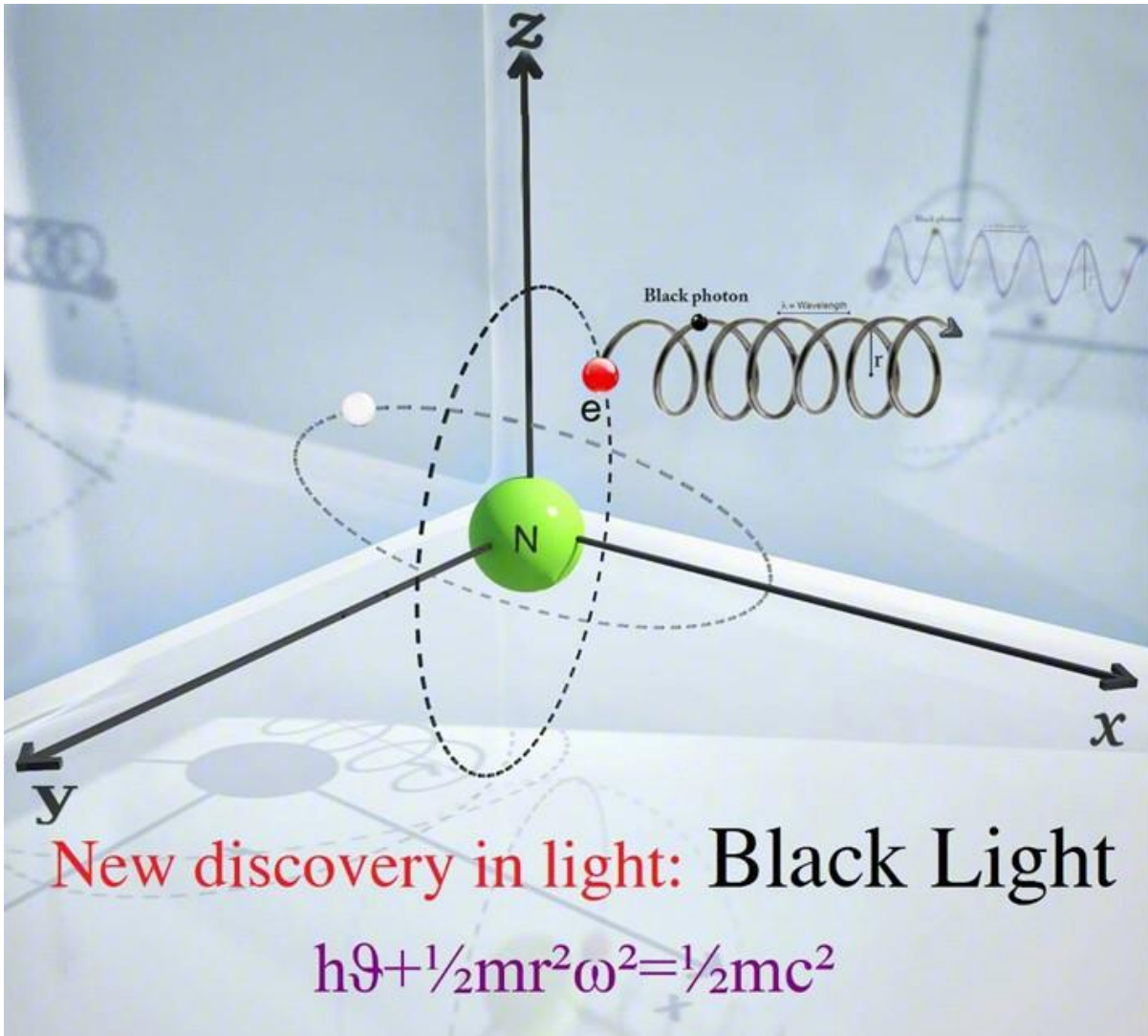


New discovery in light:

Black Light



“I see black light.”

Victor Hugo
in the last moment

Black Light

Know that the photon has a short life but also a long life you'd think that it has seen the whole Universe. If you look at the corners of the Universe, you see flashing lights that come to you and carry the secrets of 13 billion years ago. The photon, as a messenger, revives the past moments; as a little angel illustrates the whole universe; without it, the darkness would dominate the universe. darkness, grief, one over another. This courageous minuscule has brought us with him the lighting of life, the existence, the heat.

The domain of electromagnetic spectrum is very large and a small region of it is called the Visible Region. It contains packets of elemental energy, from red to violet. Apart from this, there is also the partially visible region that is clearly perceptible for two observer groups. The lower region called Infrared and the upper one called Ultraviolet. If a witness or observer has an attentive eye or possesses a high-sensitivity device, he can see the partially visible area - that contains colored packets of energy too - as clear as the visible region. On the upper region, of frequency, the lights have a particular brightness and are of different colors. We have known that the color of the photon (of the spectrum) is designated by its gyroradius. The photon exhibits properties of both wave and particle. As a particle, it is an obvious entity that has its effect, a concrete effect with its own energy and power. The photon therefore can have the same influence as a bullet, that can transmit its energy, imposes itself on the target and changes its form; Just about the photon we could take the example of the discoloration of clothes or the dimensional distortion of a plastic object when overexposed to the light. Then we can consider the photon as a tiny but effective bullet.

In the upper partially visible region there are different spectrums with a various colors including the black spectrum. You just need to have an attentive eye or a high-sensitivity device to perceive the particle aspect of these lights. As a result, the Black Light exists in the Nature and has its special particle state and its particular effect.

Domain of ϑ , λ , r in Saleh Theory:

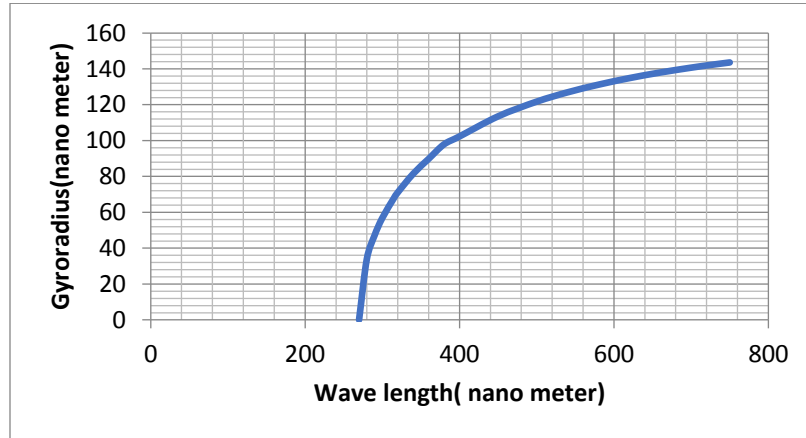
Given the main formula of the Saleh Theory, the domain for ϑ , λ , and r is defined as follow:

$$h\vartheta + \frac{1}{2} mr^2\omega^2 = \frac{1}{2} mc^2$$

$$\begin{aligned} 10^{15}_{Hz} &\geq \vartheta \geq 0_{Hz} \\ 270_{n.m} &\leq \lambda \leq \infty \\ 0_{n.m} &\leq r \leq 180_{n.m} \end{aligned}$$



Gyroradius Change Diagram according to Saleh Theory:

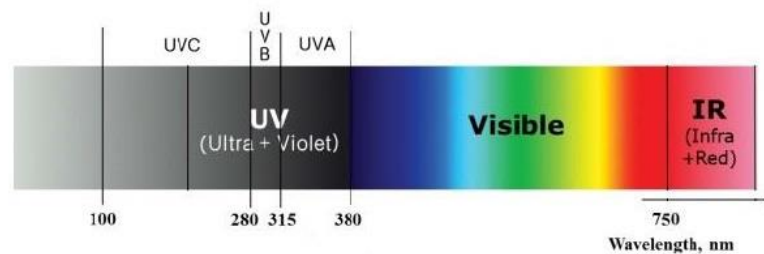


Classification of the ultraviolet zone:

UVA: $315\text{nm} < \lambda < 380\text{nm} \rightarrow 67.8\text{nm} < r < 97.9\text{nm}$

UVB: $280\text{nm} < \lambda < 315\text{nm} \rightarrow 33.8\text{nm} < r < 67.8\text{nm}$

UVC: $100\text{nm} < \lambda < 280\text{nm} \rightarrow 0\text{nm} < r < 33.8\text{nm}$



- Birds and fishes can see in UVA region

Spectrum diagram:

