

A Novel Explanation for the Particles, Waves, and Subatomic Particles Entities of Universe Based on Photons

Part b) A Novel Explanation for Photons as the Foundation of All Electromagnetic Waves

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The visible spectrum is a small part of the broader electromagnetic spectrum. These are the waves we typically see as light, or photons. Essentially, the spectrum we can see with the unaided eye is what we call natural light, made up of seven distinct colours. The discovery of these seven colours, which appear when white sunlight is refracted, dates back about 350 years.

However, a closer examination of the entire electromagnetic spectrum reveals that, despite occupying a small central band, all electromagnetic waves belong to the same family. In essence, all electromagnetic waves can be considered as visible photons, with some simply being invisible to the human eye. With the appropriate filters, ultraviolet and infrared ranges can also be readily observed.

It can be asserted that all electromagnetic waves are analogous to the visible light spectrum. While the human eye's sensitivity range allows us to perceive only a small segment of this, it is possible to extend this concept and consider all electromagnetic waves as visible, terming them detectable photonic waves. To illustrate this, consider the sensitivity of human hearing, which also has a specific range. Frequencies above or below this range are imperceptible to human ears, yet dogs and whales can easily hear and react to them.

Essentially, all sounds are based on the same principles. Still, suppose their frequency is outside the human hearing range (higher or lower). In that case, they are "inaudible" and undetectable to us, while being clearly defined and perceivable by other creatures or devices.

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