Correction of Compton's method for deriving the Compton Shift

HOSSEIN NASOORI, None — In 1923, Arthur H. Compton, in Washington University at Saint Louise, hit a beam of x-ray, the wavelength of which was precisely known, on a scattering material (graphite) and for different scattering angles, measured the strength of the scattered X-rays as a function of their wavelengths. According to Compton's experimental results, though the incident ray basically has a wavelength of λ, but the intensity of the scattered x-rays has peaks at two wavelengths. One of those wavelengths, is equal to the same incident wavelength while the other, that is, λ', is greater than λ by a value of $\Delta\lambda$. In this article, by stating a new principle on the incident electromagnetic wave (X-ray, etc.) and light, using the two principles provided in the first Article, and by giving three new definitions of the linear impulse of the electromagnetic wave (X-ray, etc.) and light as well as the linear impulse of the X -particle, we will derive the Compton shift by a new method.

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None

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