



**Studies on attenuation cross sections of several elements at 1.280 and 1.330 KeV.**

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**ABSTRACT**

*Measurements of the values of Total attenuation cross sections of several elements have been measured for 1280 and 1330 KeV photons by using formula  $\sigma_{tot} = \mu/\rho (A/N) \times 10^{24}$ , the values are compared with the values calculated from the data of Hubbell for the individual elements. The radioactive sources used in the experiments were Na22 and Co<sup>60</sup>. Total attenuation cross sections for several elements have been measured for gamma rays from 1280 and 1330 keV photons using the well type scintillation spectrometer. by using a narrow collimated beam method which effectively excluded correction due to small angle and multiple scattering of photons. The values of Total attenuation cross sections are computed theoretically by J.H. Hubell and S.M. Seltzer [Table of X-Ray Mass Attenuation coefficients {1995}]. .*

**Keywords:** Attenuation coefficient, Total attenuation cross sections, NaI (Tl) Scintillation detector.

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