

MEASUREMENT OF THE MASS ATTENUATION COEFFICIENT FROM 81 keV TO 1333 keV FOR ELEMENTAL MATERIALS Al, Cu AND Pb

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The mass attenuation coefficients (μ/ρ) for 3 high purity elemental materials (Al, Cu and Pb) were measured in the γ -ray energy range from 81 keV up to 1333 keV using ²²Na, ⁶⁰Co ¹³³Ba and ¹³³Cs as sources. Well shielded detector (NaI (Tl) semiconductor detector) was used to measure the intensity of the transmitted beam and any photon absorbed or deflected appreciably does not reach the detector if the detector is far away from the absorber. The measured values are compared with the theoretical ones obtained by Seltzer (1993).

1. Knoll, F.G (2000) Radiation detection and measurement, Jonh Wiley and Sons, 2000
2. Seltzer, S.M. (1993), Calculation of Photon Mass Energy-Transfer and Mass Energy-Absorption Coefficients, Rad. Res. **136**, 147-170.