

STUDY OF THE ATTENUATION COEFFICIENT OF  
ROCK SAMPLES FOR GAMMA RADIATION

A.M.D. Amarakoon, A.W.K. Udugama  
Dept. of Physics, University of Peradeniya

A study of the attenuation coefficient (absorption coefficient) of some rock samples for gamma radiation has been performed using a <sup>137</sup>Cs source and a <sup>60</sup>Co source. The nominal strength of each source was 100 Ci. The rock samples studied were slabs of Barite, Feldspar, Lining stone, Mica, Graphite and a mixture of Quartz and cement. The spectrometer system used consisted of a NaI (Tl) detector coupled to appropriate nuclear - electronic modules.

The results show that Barite and Mica have relatively high attenuation coefficient.

References

- Amarakoon, A.M.D.; et al:(1986) SLAAS Proceedings 42  
Lamarsh, John R; Introduction to Nuclear Engineering,  
Addison - Wesley Publishing Co., 1975.

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