Cement, mainly, natural limestone and clay mixture after being heated at high
temperature is obtained by milling and it is defined as a hydraulic binder material.
Especially, cement is used in production concrete. The photon attenuation coefficient
(\(\mu, \text{cm}^{-1}\)) for cement paste has been measured using gamma spectrometer containing
NaI(Tl) detector and MCA at 835, 1173, and 1332 keV. Cement paste was prepared
with types of Portland cement which is CEM I 52,5 R- and CEN reference sand has
been used according to TS EN 196-1 standard. The mass attenuation coefficients have
been calculated at photon energies of 1 keV to 100 GeV using XCOM and the obtained
results were compared with the measurements at 835, 1173, and 1332 keV.
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