Cite this article
(2023)
Award-winning paper in 2021.
Emerging Materials Research **12(1)**: 100,
https://doi.org/10.1680/jemmr.2023.12.1.100

Announcement

Emerging Materials Research

ice Publishing

Award-winning paper in 2021

Papers published in *Emerging Materials Research* are eligible for awards from the Institution of Civil Engineers (ICE). Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 14 October 2022, ICE president Ed McCann presented an award to the following paper published in *Emerging Materials Research* in 2021. The editorial panel nominated their best papers and an awards committee chaired by Tim Broyd allocated the awards.

Emerging Materials Research Prize

The Magazine of Concrete Research Prize, awarded for the best paper published in *Magazine of Concrete Research*, was awarded to Çelen (2021).

Abstract

Radiation has been used in many different fields since its discovery, but using it in medical applications is vital, as it is related to human health. In medical application, many different materials are used for different purposes. Three-dimensional materials are used in phantom technology, and it is important to know the properties of those materials. In this study, the linear attenuation coefficients (LACs; μ, cm^{-1}) and some other related parameters of gamma rays (mean free path, half-value layer, tenth-value layer, effective atomic number (Z_{eff}), electron density (N_{eff}) and equivalent atomic number (Z_{eq})) were obtained for five different phantom fabrication materials used in medical dosimetry. The calculations were done using the Phy-X/PSD software for gamma energies of 10^{-3}–10^{5} MeV. The obtained LAC results ranged from 0.103 to 0.13 cm^{-1} for 0.365 MeV, from 0.09 to 0.11 cm^{-1} for 0.511 MeV and from 0.059 to 0.076 cm^{-1} for 1.275 MeV.

REFERENCE

Çelen YY (2021) Gamma-ray-shielding parameters of some phantom fabrication materials for medical dosimetry. *Emerging Materials Research* **10(3)**: 307–313, https://doi.org/10.1680/jemmr.21.00043.