

The Study on Annual Effective Dose of Different Kinds of Soil in Yangon University of Education Using Solid State Nuclear Track Detectors (LR115)

Nu Nu Swe¹, Win Win Maw², Thuzar Yin³ and Khin Swe Oo⁴

Abstract

Samples of soil from different University hostels have been analyzed for radon concentrations and annual effective dose. For the measurement, alpha sensitive LR115 Solid State Nuclear Track Detectors (SSNDT) were used. In this research, the calculated value of radon concentration emanated from the soil samples varied from $28 \pm 24.665 \text{ Bqm}^{-3}$ to $314 \pm 41.589 \text{ Bqm}^{-3}$ and the average annual effective dose is varied from $0.48 \pm 0.424 \text{ m Svy}^{-1}$ to $5.40 \pm 0.715 \text{ m Svy}^{-1}$. According to these results, it was not found the higher level of radon concentration and the annual effective dose which are lower than 14 m Svy^{-1} , the ICRP recommended level.

Key words: LR-115 type II, Radon Concentration, Annual Effective Dose

1. Associate Professor, Dr., Department of Physics, Yangon University of Education
2. Lecturer, Dr., Department of Physics, Yangon University of Education
3. Lecturer, Dr., Department of Physics, Yangon University of Education
4. Professor/Head, Dr., Department of Physics, Yangon University of Education