International Journal of Applied and Natural Sciences (IJANS)
ISSN(P): 2319-4014; ISSN(E): 2319-4022
Vol. 3, Issue 3, May 2014, 95-100

International Academy of Science, Engineering and Technology
Connecting Researchers; Nurturing Innovations

STUDY OF RADON LEVELS IN DWELLINGS OF NASIRIYA, THIQAR (IRAQ) AND DETERMINATION OF THE ANNUAL EFFECTIVE DOSE USING SOLID STATENUCLEAR TRACK DETECTORS (SSNTD) TECHNIQUE

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ABSTRACT

Radon is a cancer-causing, radioactive gas. It comes from the natural (radioactive) breakdown of uranium in soil, rock, and water and is released into the air we breathe. Radon is found in buildings, homes, offices, and schools - and can reach drastically high levels, causing a major health concern. Study of indoor radon has been carried out in some dwellings of Nasiriya district in Thiqar Governorate south of Iraq using LR-115 type II (SSYTDs). In the present study the value of concentration of radon ranges from 191.8 ± 8.7 to 38.3 ± 3.3 $Bq.m^{-3}$ Annual effective dose received by the human lunges varies from 0.66 ± 0.06 to 3.32 ± 0.15 $mSv.y^{-1}$.

KEYWORDS: Annual Effective Dose, Indoor Radon, LR-115 Type II (SSYTDs), Radon Concentration, PAEC