

Environmental radioactivity with respect to geology of some Serbian spas

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Abstract

This study was performed in order to investigate gamma dose rates, radon exhalation rates and soil radioactivity with respect to geology. Fifteen locations in three Serbian spas were under investigation. Gamma dose rate was measured by Radex RD1503⁺ monitor. GIS technology was applied for the interpretation of the results. HPGe detector was used for gamma-spectrometry determination of soil radioactivity. Radon exhalation rate was determined using RAD7 device. The correlation was examined between radon exhalation rate and ²²⁶Ra. No correlation was found between calculated effective dose from radionuclides in soil and measured ambient gamma dose rate.

Keywords Soil · Radon exhalation rate · Gamma dose rate · Geology · Correlation

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