

Contribution to analysis of time courses of soil radon concentration (year 2004)

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Abstract: The article is devoted to evaluation of dependence between measured values of volume activity of ^{222}Rn and ^{220}Rn in soil air and some meteorological parameters (temperature, humidity and pressure of atmospheric air) in an annual cycle from 13.1.2004 to 26.1.2005. In addition to year-around assessment of observed dependencies by means of linear regression (Table 1) there is also presented more detailed statistical analysis of variability of daily (weekly) measurements files. Based on these results several shorter time periods (seasons) are detached within a year which differ from each other by weather character and during which single meteorological parameters get determining influence on measured concentrations of ^{222}Rn and ^{220}Rn (Table 2). The results document a tight dependence between radon content in pore space of soil cover and meteorological parameters of atmospheric environment in dependence on weather changes in a year cycle.

Key words: volume activity of ^{222}Rn and ^{220}Rn , soil air, seasonal variations of radon, temperature, humidity, pressure of atmospheric air

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