



PARAMETERS OF ATMOSPHERIC RADIOACTIVITY IN BULGARIA

Bilyana YANEVA¹, Petar TODOROV², Daniela GEORGIEVA³

h/c Mladost block 129 entr 1 apt 18 9020 Varna Bulgaria e-mail biljanita_s@abv.bg
^{1,2,3}Technical University – Varna

Bulgaria is a country which is located on the Balkan Peninsula at the Eastern part of Europe. There are a lot of polluting sources which can affect the environmental parameters and human health. One of these parameters is a radioactivity. It can be as a result from natural and anthropological sources. One of the most important sources of radiological influence to the environment and its components is from atmosphere. Anthropological sources of atmospheric pollution are Nuclear power plants, different kinds of industrial plants and so on. The systematic control on these parameters is made by the Ministry of environment and water in Bulgaria.

The atmospheric radioactivity research is based on collecting of many samples and its examine. The collecting of these aerosol samples on different kind of filters is automatic and it is put into practice by fixed stations located in some of the main towns in Bulgaria – Sofia, Varna, Burgas, Vratza and Montana. The required amount of air for each sample is 1000m³. These samples are analyzed by gamma spectrometry analysis for determination of specific activity of natural and anthropological radionuclides in them. Monitoring data for the atmospheric radioactivity can be characterized by concentrations of Cs-137, Be-7. The results show that concentrations of Cs-137 are < 3μBq/m³ and the concentrations for Be-7 vary from 0.7 to 15.7 mBq/m³. Other important radionuclides are Sr-90, Uranium and Ra-226.

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