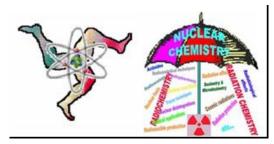
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The dynamics of radioactive aerosols in the atmosphere of Moscow by the "Fukushima" nuclear power plant accident.

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As a result of the accident at the "Fukushima" nuclear power plant, caused by an earthquake, there were releases of radioactive substances into the environment.

To date, many countries reported on the flow of radioactive aerosols from Japan and the radioactive contamination of the environment, as well as food (1,2,3,4).

Intake of radioactive aerosols in Moscow was registered at radiation monitoring stations of SIA "Radon", "March 23, 2011.

Using powerful air sampler led to the identification of radioactive aerosols in the atmospheric surface layer of Moscow: 131I, 132Te, 134Cs, 136Cs and 137Cs. Maximum volume concentration of these radionuclides were, respectively: 2,7•10-3 Bq/m3, 7,7•10-5 Bq/m3, 4,8•10-4 Bq/m3,

2,1•10-5Bq/m3, 6,8•10-4Bq/m3. Simultaneously, it was determined the ratio of volume activity concentration of the aerosol form of iodine to the volume activity concentration in gaseous form, which amounted to 3,3 \pm 0,2.

In addition, it was determined the ratio of activity concentration of 137Cs and 134Cs. This ratio is equal to 1,4 \pm 0,2.

Method of stack filters have produced baseline data for evaluating the dispersion characteristics of radioactive aerosols originating from Fukushima accident in Moscow surface air.

References

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