
Estimation of the Radioactivity Level Induced by Airborne Radio-nuclide Rainout Episodes

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Abstract

During many rainfalls our detectors for Environmental Radiation (γ - rays with $E > 50$ KeV from airborne radio-nuclides and secondary cosmic rays in atmosphere) have measured large increases of gamma-ray counting rates in the emission lines of ^{214}Pb and ^{214}Bi . By comparing the observed spectra with those of a standard sealed source of ^{226}Ra we estimate the contribution to the local radioactivity level induced by these rainout episodes.