RESEARCH OF RADIONUCLIDE MIGRATION INSIDE 30-KILOMETERS CHORNOBYL EXCLUSION ZONE

M. D. Bondarkov, S. P. Goshchak, M. V. Zheltonozhskaya, A. I. Lipskaya, L. V. Sadovnikov

The investigation of migration of Chornobyl origin radionuclides was carried out in soil profiles of the Glubukoe lake within 5 km ChNPP zone. The soil samples were taken along four experimental trenches in 2002. γ- and β-emanations of these samples were investigated after the corresponding processing. ^{134,137}Cs, ^{154,155}Eu, ^{241}Am isotopes were identified very well. ^{90}Sr isotopes were identified as a result of research of the thin layers β-spectra. $^{238+239}$Pu isotopes were determined using nondestructive control methods. The migration of ^{134,137}Cs, ^{154,155}Eu, ^{90}Sr, ^{241}Am and the $^{238+239}$Pu isotopes was observed to the depth of 30 cm. The obtained data is analyzing.