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MOBILITY OF ^{90}Sr AND ^{137}Cs IN SOILS CHARACTERIZED WITH CONTRASTING PROPERTIES

Results of the study of ^{90}Sr and ^{137}Cs migration mobility in soils characterized with contrasting physical-chemical properties and granulometric composition has been analyzed. The mentioned radionuclides were introduced in soils in initial water-soluble form. Ecological and effective half-time of cleaning of soils 20-cm horizons (T_{ecol}) has estimated. Mean values of T_{ecol} ^{90}Sr varies in limits 3.7 - 84 years. T_{ecol} ^{137}Cs varies in limits 61 - 265 years. Correlation of ecological half-time cleaning of soddy-podsolic soils species from radionuclide and physical-chemical properties and granulometric composition of these ones has been analyzed, strong correlation of T_{ecol} ^{90}Sr as well, as mean correlation of T_{ecol} ^{137}Cs with mentioned soils characteristics has been noted.

Keywords: ^{90}Sr,^{137}Cs, vertical transport of radionuclides, perennial dynamics of transport, periods of half-time of cleaning, physical-chemical properties and granulometric composition if soils.