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The inflow of Cs-137 in soil with root litter and root exudates of Scots pine

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In the model experiment on evaluation of Cs-137 inflow in the soil with litter of roots and woody plants root exudates on the example of soil and water cultures of Scots pine (Pinus sylvestris L.) was shown, that through 45 days after the deposit Cs-137 solution on pine needles (specific activity of solution was 3.718*106 Bk) of the radionuclide in all components of model systems has increased significantly: needles, small branches and trunk by Cs-137 surface contamination during the experiment; roots as a result of the internal distribution of the radionuclide in the plant; soil and soil solution due to the of receipt Cs-137 in the composition of root exudates and root litter. Over 99% of the total reserve of Cs-137 accumulated in the components of the soil and water systems, accounted for bodies subjected to external pollution (needles and small branches) and <0.5% - on the soil / soil solution, haven't been subjected to surface contamination. At the same contamination of soil and soil solution by Cs-137 in the model experiment more than a> 99.9% was due to root exudates