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PAPER TITLE Chronic irradiation from incorporated radiocaesium could  
stimulate its uptake by plants

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ABSTRACT (See instructions overleaf)

We have investigated the influence of incorporated by roots radiocaesium on its uptake processes. 3-day pea seedlings were growing for week on the radiocaesium chloride solutions with specific activity from 0.2 to 519 kBq/l. Stable caesium chloride was added in these solutions in concentration of 1  $\mu\text{M}/\text{l}$  to achieve the equal chemical conditions for various variants. The all amount of radiocaesium from solutions was absorbed by plants over the week but its distribution within the roots was different for various accumulated doses. Apex radioactivity was equal to 14.9 % from radioactivity of whole root for dose of 0.004 Gy and 1.9 % for 2.475 Gy. That is in the later case roots faster absorbed caesium and redistributed it from root to stem under influence of chronic irradiation. There was an another evidence of it. The root apices after previous chronical irradiation have accumulated radiocaesium in 4 times greater during 2 hours than control ones. So we could supposed greater level of radiocaesium accumulation by plants in conditions of chronic irradiation on the radionuclide contaminated places. This is especially important for developing of the efficient countermeasures for radiation protection in the environment.