

POLY-BARRIER OF MOSSES DURING FORMATION OF TECHNOGENIC BIOGEOCHEMICAL ANOMALIES

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Periodic distortions in direct proportional relation of trace elements in sphagnum moss genus (which is a barrier-free accumulator of chemical elements) and in the soil on which it grows are found in the impact zone of copper-nickel mining company in Kamchatka. The dependence sometimes has the reverse ratio. The proposed name of the phenomenon is «Plant Poly-barrier Accumulation of Chemical Elements». Upon reaching the critical concentration of elements in the soil, the barriers «break» and a new, usually sharp increase in the concentration of elements in plants up to the next level barrier is observed. For the Sphagnum moss genus in the climatic conditions of the study area the approximate quantitative poly-barrier characteristics are measured in ppm of live weight for: Ni – 14, 50 and 600; Cu – 7-8 and 112; Zn – 11 and 15; Pb – 2 and 5; Mn – 150 and 340; Cr – 7 and 70.

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