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**RESEARCH OF RADIOECOLOGICAL PROCESSES
BY METHODS OF THE THEORY OF RELIABILITY**

Theory and the models of radiocapacity ecosystems using the theory and models of reliability have allowed adequately to describe the laws of migration and radionuclides distribution for different types ecosystems of reservoirs and land. The theory and the models of radiocapacity allow strictly to define critical elements of ecosystem where it is necessary to expect temporary or final depoting of radionuclides. The approach on the basis of application biogenic tracers allows within the framework of the theory both models of radiocapacity and reliability simultaneously to estimate the processes of radionuclides migration, to define the dozes of loading on biota ecosystems, and to establish fundamental parameters of radionuclides redistribution speeds and others pollutants in different types of ecosystems.

Keywords: reliability of ecosystems, radiocapacity, radionuclides, ecological capacity.