

THE INVESTIGATION AND THE MODELING OF ECOSYSTEMS RADIOCAPACITY

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The article presents the new approach to estimate the condition of biota ecosystem - on behaviour of parameter of radiocapacity is offered. The radiocapacity is defined as the limiting quantity of radionuclides which on the dosage influence is not yet capable to break the basic functions of biota: ability to keep biomass and to the condition of inhabitancy. Models of ecosystem radiocapacity are constructed and the parameters capable adequately react on different factors (γ -irradiation, heavy metals) are offered. By the experiments results, parameters appeared capable precisely to display influence of different factors on biota and to outstrip on the reactions biological growth parameters are suggested. It is shown, that reaction of parameters of radiocapacity can serve as the ecological thermometer measuring the condition and well-being of biota, and to serve as a measure for equidosimetric estimations of the influence of radiation and the chemical factors. The model and the parameter for the estimation of combined factors synergism action are developed. It is shown, that in dynamics of growth of biota in ecosystem actions of different factors can vary from synergism up to antagonism. The leading part of processes of restoration is shown at the action to biota of radiation and chemical factors.