THE MODELLING OF PROCESSES OF CHEMICAL TRANSFORMATIONS AND DEDUCING FROM AN ATMOSPHERE OF THE COMPOUNDS OF SULFUR AND NITROGEN ACROSS THE PACIFIC OCEAN

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The modeling calculations of transfer and fallout of compounds of sulfur are carried out with use generalized and constant in time of coefficients of speeds of chemical transformation of sulfur dioxide without taking into account changes of a chemical compound of air during transfer. Also daily change of concentration of the free radicals determining speed of oxidation of compounds of sulfur and nitrogen in the afternoon was not taken into account. In this work presents simple model of chemical transformations and deducing of compounds of sulfur and nitrogen on underlying surface during distant atmospheric transfer. The substances enter reactions with each other and with formed free hydroxyl and hydro-peroxide radicals in the process of the transfer. The executed researches have shown, that the heterogeneous processes on a surface of aerosol particles are very important role in transformation of gaseous products. The speed of heterogeneous oxidation of sulfur dioxide has been described by exponential law in offered model. Examples of studying of effect of influence of compounds of nitrogen on speed of chemical transformations of compounds of sulfur have shown, that sulfur dioxide and nitrogen oxides compete among themselves for the participation into reaction of oxidation with free radicals. Thus speed of reaction between nitrogen oxides and free radicals is essentially higher.