

## Simulation of biological treatment of water in aeration tanks regenerator

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Today by reducing water quality in open water problem appears to reduce human pressure on water objects. One of ways is increasing the efficiency of water treatment facilities. Currently the most common is biological treatment of wastewater because of its versatility and low cost of operation. The efficiency of biological treatment plants wastewater can be markedly improved by optimizing technical modes of biological wastewater treatment. The actual process for this is computer modeling of biological wastewater contaminants in water purification systems and determine the parameters that most influence the time and quality of treatment.

Solved mathematical model that describes the patterns of change processes concentrations flakes, dispersed bacteria, autolysis products and substrate in the regenerator aeration tank, that in the first phase of the cleaning process. Found the solution of the corresponding model problem using function pdepe environment Matlab. Received results of calculating the concentration distribution of contamination and bacteria over time cleaning fluid.

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