

## Investigation of the processes of sewage sludge Structuring in terms of cavitation effects

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### Abstract

The processes of structuring of sewage sludge in the conditions of cavitation effects have been studied. As a result of simulation of physical behavior of the oscillating cavitation cavity of spherical shape there were calculated maximum temperature and maximum pressure, which are reached in the cavity at its collapse.

We established the possibility of modification of sewage sludge with the use of the developed labyrinth-cone mill, which provides additional capacity-flow turbulence at the expense of the pulsatile hydrodynamic vibrations in the system "liquid - solid," created by the rotating rotor with annular baffle. The results of these studies indirectly indicate the modification of the sludge structure under the impact of complex physical and chemical processes that occur as a result of cavitation effects.