

Creating a comprehensive conditioning technology saline water for municipal and industrial water use.

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Results

This work is aimed at the creation of scientific bases of desalination and purification of highly mineralized water without the formation of liquid waste to developing an integrated water conditioning technology, which provides softening and desalination of water, its decontamination and stabilization with respect to scaling to meet the needs of utility and industrial companies. In carrying out the work, along with the problem of providing consumers high-quality water, solved the problem of reducing human pressure on natural water bodies due to a sharp decrease in the volume of industrial waste water in the closed cycle of water use.

As a result of the work, the technology of preparing high-quality drinking water for the population, which is based on the clarification reagent highly mineralized water, desalination and nanofiltration softening with simultaneous processing of concentrates. The introduction of the technology will solve the problem of water supply enterprises in areas with highly with natural waters. The influence of industry on the level of salinity of natural water bodies, carried out an assessment of different methods of conditioning of highly mineralized waters, to establish effective processes of softening and stabilizing reagent water, designed redox and electrochemical recycling methods of regeneration solutions in two-, three- and fourchamber electrolyzer, a comprehensive cleaning technology of highly of water.

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