

This invention relates to a method for purification of water from sulfur compounds. A method for purification of water from sulfur compounds, according to which method the water is subjected to anaerobic treatment with sulfur- and/or sulfate-reducing bacteria in addition of electronic donor compound. The consumption of electronic donor compound is reduced due to realization of one or several actions:

- a1) keeping concentration of sulfate-ion in exhaust liquid at the level of not lower than 500 mg/l;
- a2) keeping concentration of sulfite-ion in exhaust liquid after anaerobic treatment at the level of not lower than 100 mg/l;
- b) keeping salt concentration (as counting per sodium ion) in the liquid medium during carrying out anaerobic treatment at the level of not lower than 6 g/l in mesophilous conditions, or not lower than 3 g/l in thermophile conditions;
- c) keeping concentration of sulfide-ion in the liquid being arrived for anaerobic treatment at the level of not lower than 100 mg/l.