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Application of strong pulse electric fields for disinfecting of the water mediums ELCHIN GURBANOV, Azersu OJSC, ARIF HASHIMOV, Azerenerji OJSC — Now development on use of strong electric fields for water treatment represents a big urgency. In present article influence of high-voltage pulse fields for disinfecting of drinking water and sewage is considered. In researches the high voltage pulsed generator with exit tension about 100 kV and the different electrode systems are used. They promotes the non-uniform distribution of electromagnetic power lines in interelectrode distance and to development of discharge processes in gases, dissolved in water. Depending on parameters of the discharge gap and electrode system (tension polarity, radius of curvature, the bared area of potential electrode and etc.) we observe the various electro physical processes in interelectrode distance. An impact of high pulse voltage periodically cause inside of gas bubbles in water the high-frequency plasma-chemical processes with photoionization. As a result, an ultra-violet radiation and mechanical compressed waves are appeared and perniciously influencing on microorganisms in water. This process periodically proceeds to their full relaxation. Such method of treatment of liquid mediums is considered much more power effective (less energy-intensive) and environmentally clear in comparison with other appendices.

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