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SOS-GENERATOR FOR THE ELECTRIC DISCHARGE TECHNOLOGY USED PULSE BARRIER DISCHARGE

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Abstract

The generator of short pulses amplitude of up to 30 kV and the steepness of the front in $10_{11}…10_{12}$ V/s is described. It designed for industrial technology generation ozone and direct water treatment by pulsed barrier discharge. Inductive energy storage and diodes with the time of breakage of current ~ 40 ns is used in the final stage of the generator. The coefficient of energy transfer from the primary energy storage to a resistance load reaches 38%, in the case of a load in the form of a barrier discharge - 20%. The conclusion is that a significant part of the energy transmitted from the primary source, stored in a capacity of dielectric barrier discharge

chamber, which is then wasted unproductively. The path of beneficial using this capacitive energy is proposed when discharge camera shunts immediately after pulse barrier discharge with magnetic switch. A thorough coordination the impedance of discharge camera with options of the generator is also needed to improve the efficiency of using of energy from the primary source.
References 9, figures 5, table 1.

Key words: SOS-generator, SOS-diode, magnetic switch, pulse barrier discharge, energy of the pulse.

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