

INFLUENCE OF A PULSE
DURATION OF HIGH-VOLTAGE SUPPLY
ON THE EFFICIENCY OF OZONE SYNTHESIS
IN THE “NEEDLE — PLANE” ELECTRODE SYSTEM

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S u m m a r y

We present the results of studies of the electrodynamic characteristics of a barrierless discharge with electrodes of the “needle — plane” type and a high-voltage pulse of positive polarity, being applied to the edge electrode. The efficiency of ozone synthesis is determined as a function of the pulse duration and repetition rate. It is shown that the electrodynamic characteristics of the discharge and the effectiveness of ozone synthesis in oxygen-containing gas mixtures essentially depend on the parameters of the pulse supply. As a high-voltage commutator, we used a high-speed high-voltage semiconductor switch of the HTS-300 line produced by BEHLKE Electronic GmbH (Germany).