

Some peculiarities of electric discharge between a solid electrode and technical water

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Abstract

© 2016, Pleiades Publishing, Ltd. We present the results of experimental study of the electric discharge between metal electrodes of various geometry and technical water within the pressure range of 8×10^3 – 10^5 Pa at the saw-tooth voltage generator frequency, $f = 40$ MHz, and the interelectrode distance, $l = 3$ – 30 mm. We consider transfer of the streamer discharge into spark one depending on the geometry of the metal electrode and its material. We investigate the electrical characteristics of the discharge between the plate electrode and the technical water within a wide pressure range. The essential influence of the streamer discharge type on the ozone release within the investigated parameters range is discovered.

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