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PARAMETRIC MODEL OF RESISTANCE OF PLASMA-EROSIVE LOAD, ADEQUATE IN THE WIDE RANGE OF CHANGE OF APPLIED VOLTAGE

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Abstract

In the present article advantages of parametrical models of plasma-erosive loads are considered. Dependence of duration of modes of a discharge current on amplitude of pulses of the applied voltage is investigated. The parametrical model of resistance of plasma-erosive load, adequate in a wide range of changes of the applied voltage is developed. Dependence of its factors on amplitude of pulses of the applied voltage is investigated. Influence of parameters of discharge pulses on average value of the sizes of plasma-erosive particles is considered. The new method of a tentative estimation of optimum ranges of change of amplitude of pulses of voltage for production of plasma-erosive particles small or big sizes is offered. The method is based on construction of functional of the sums of the factors of parametrical model of

resistance of plasma-erosive load weighed on their maximum value and a finding and the analysis of his local maxima and minima. References 17, figures 4, table 1.

Key words: plasma-erosive load, discharge current, parametric model, the adequacy, dimensions of plasma-erosive particles.

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