INJECTION OF THE CURRENT CARRIERS FOR ARC IGNITION BETWEEN RAIL ELECTRODES OF POWER PLASMA GENERATORS *

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One of the problems arising at creation of alternating current plasma generators is transition of a current through zero. The additional plasma injector is used for initiation of the basic arcs of the powerful alternating current plasma generator with rail electrodes and solution of this problem. It is a stationary low power plasma generator with a long life time of continuous work. The injector provides concentration of current carriers between the basic electrodes sufficient for initial basic arc ignition and their reignition. This paper analyzes the features of the plasma generator work with additional injection and influence of the injector power on ignition of the basic arcs. Powerful alternating current plasma generators with a long life time of continuous work are claimed for creation of modern plasmachemical installations for production of power raw material (combustible gases) and also for processing of industrial and municipal waste.

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