

METHOD OF CALCULATION OF PLASMA BOUNDARY POSITION IN HIGH VOLTAGE GLOW DISCHARGE ELECTRON GUNS FORMED THE TUBE-LIKE ELECTRON BEAMS

The numerical method of calculation of anode plasma boundary position in the electrodes systems of high voltage glow discharge electron sources, formed the tube-like electron beams, is considered in this paper. The method is based on defining of plasma boundary position in the simple electrodes' system with the plane electrodes and recalculation the volume of plasma to considered electron gun with the complex shape of electrodes. Obtained graphical dependences of plasma volume on the highness of plasma and on constructive geometry parameters of electrodes are presented.

Primary authors: Mr MELNYK, Igor (Dr.); Mr CHERNYATINSKIY, Igor; Mrs PIASETSKA, Natalia (Student)

Presenter: Mr MELNYK, Igor (Dr.)

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