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Characteristics of RF cathode-neutralizer using argon as the working gas

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The paper presents the first results of an experimental study of the cathode-neutralizer characteristics, the working process of which is based on an inductive RF discharge in argon. The range of argon flow rates is 4–10 cm^3/min, the power range of the RF generator is 35–150 W. It is shown that when the threshold voltage between the ion collector and the electrode (anode) positively charged with respect to the collector is reached, an abrupt increase in the electron current is observed.

Keywords: cathode-neutralizer, inductive, radio-frequency, discharge, plasma, ions, electron current.

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