

DRIFT OF ELECTRONS IN GAS
IN SPATIALLY INHOMOGENEOUS
PERIODIC ELECTRIC FIELD

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S u m m a r y

The paper presents the results of calculations of the characteristics of the electron drift in a constant periodic spatially inhomogeneous electric field. It has been shown that, in typical experiments with a gas plasma at a reduced gas pressure, the influence of field inhomogeneities on the drift velocity and the average energy of the electrons is negligible. But the excitation and ionization intensities and the spatial distribution of plasma are strongly dependent both on the value of inhomogeneity (dispersion) and the nature of the changes in the field. It has been shown that an inhomogeneity of the electric field in the positive column of a gas discharge forces the electron energy distribution function to be the Maxwell one.