

MICRODISCHARGE PLASMA IN THE VORTEX FLOW: PHYSICAL PROPERTIES AND APPLICATIONS

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Abstract

In this paper the microdischarge in a vortex gas flow was studied. The physical and optical properties were investigated. The temperatures of excited vibrational levels and excited rotational levels of molecules were determined from an emission spectra of the microdischarge by using a Specair code. The electric field in the microdischarge plasma was estimated by the dependence of the voltage drop on the discharge at different interelectrode distances. The average electron energy and the electron energy distribution function were determined using code Bolsig +

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