

ELECTRICAL CONDUCTIVITY OF NON-IDEAL ARGON PLASMA IN TRANSVERSE MAGNETIC FIELD

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Experimental results of investigation on transport properties of weakly non-ideal argon plasma in magnetic field are presented. The impulse magnetic field with induction up to 20 T was generated by discharge of capacitance through solenoid reeled on the generator channel. The plasma was generated by shock compression of gas under study with the aid of linear explosive generators. The initial parameters of gas were normal. The plasma was investigated by four-probe methodic. The experiments were conducted in the following region of plasma parameters: $\Gamma_D = 0,07 - 0,3$, $n_e = 8 \cdot 10^{15} - 3 \cdot 10^{18} \text{ cm}^{-3}$, $T = 8000 - 13000 \text{ K}$. The comparison of experimental values of resistance and conductivity with calculated ones are presented.