

SELF-EXCITED DUST-ACOUSTIC WAVES IN GAS PHASE OF A DUSTY PLASMA

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We, for the first time, carried out an experiment to study dust-acoustic waves in weakly coupled glow discharge plasma ($\Gamma < 1$). The main feature of the experiment is the cryogenic temperature of the buffer gas. The main parameters of plasma and waves are measured. The theoretical model is created.

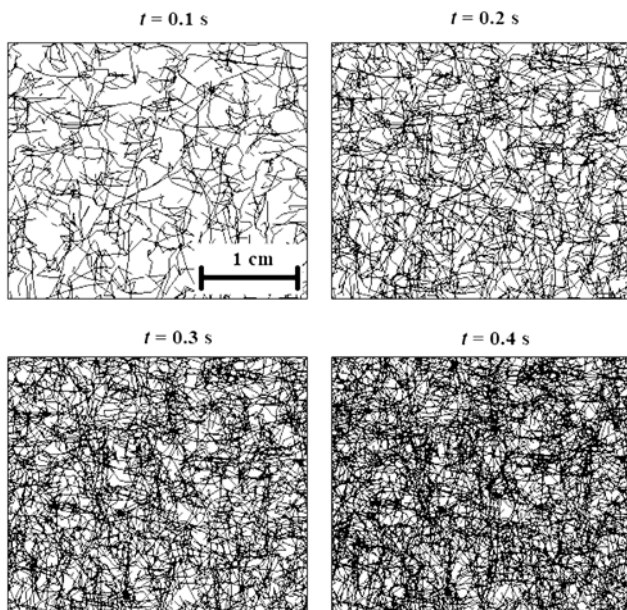


Fig. 1. Tracks of dust particles for different periods of time

As can be seen from Figure 1, dust particles do not form a crystal lattice. An analysis of the correlation functions also indicates that the experimentally observed plasma is close to the gas phase.

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