

COMPRESSIBILITY OF DUSTY PLASMA FROM OBSERVATION OF COMPRESSION WAVE PROPAGATION.

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A compression wave propagation through the elongated three-dimensional dusty cloud was observed in the PK-4 parabolic flight experiments. The compression wave was excited by a pulse electric action on the cloud in the direct current discharge with 1 kilohertz alternating polarity. Under experimental conditions the wave velocity was determined mainly by interactions inside a dusty subsystem. Analysis of the wave propagation gives estimation of non ideal dusty plasma adiabatic compressibility.