

Influence of metal macroparticles to the electron density in a dusty plasma

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Abstract

© Published under licence by IOP Publishing Ltd. We obtained the equation, which describes electron density in an equilibrium dusty plasma taking into account parameters of the electron gas inside the dust particles. The inclusion of these parameters performed on the basis of the model of "solid-state plasma," considering the condensed particle system as the ion core and the free electron gas. The shape of potential barrier at the particle surface assumed as a rectangular.

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