



# ICPDP

## 9<sup>th</sup> INTERNATIONAL CONFERENCE ON THE PHYSICS OF DUSTY PLASMAS

SPACE RESEARCH INSTITUTE (IKI)  
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# INFLUENCE OF IONIZATION POTENTIAL OF BUFFER GAS ON THE CHARGE VALUE OF MACROPARTICLES IN THERMAL DUSTY PLASMA

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In this paper, we consider an equilibrium thermal dusty plasma containing charged metallic dust particles. Using the Richardson-Deschman model and using the Saha formula, the charge of particles was calculated for different values of their size, concentration, system temperature, chemical composition of particles and buffer gas. It was found that, *ceteris paribus*, in buffer gases with a low ionization potential, the charge on the particles reaches lower values than in gases with a high gas ionization potential.

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