

# Dynamically Screened Elastic Collisions in Nonideal Plasmas

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The dynamic screening effects on elastic electron-ion collisions are investigated in nonideal plasmas. The second-order eikonal method with the impact parameter analysis is employed to obtain the eikonal phase as a function of the impact parameter, collision energy, thermal energy, and Debye length. The result shows that the eikonal phase decreases with increasing the thermal energy. It is also found that the dynamic screening effects on the eikonal phase are more significant for large impact parameters. The total eikonal cross section is also found to be decreased with increasing the thermal energy. It is important to note that the eikonal cross section and the eikonal phase including the dynamic screening effects are found to be greater than those including the static screening effects.

*Key words:* Dynamic Screening; Nonideal Plasmas.