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Erratum

Erratum to: Polarization wake of penetrating ions: oscillator model

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Changes in Figure 7:

1. A minor change in the induced potential for $\omega_p^2/\omega_0^2 = 1$, $q_1 = 1$ due to computational error.
2. The total potential is the sum of the induced potential and the vacuum potential equation (14), not the bare Coulomb potential.

See next page the correct figure.

The last paragraph in Section 5.3 now reads as follows:

Similar, slightly reduced features are still found for $\omega_p^2/\omega_0^2 = 1$, whereas the graph referring to low density or $\omega_p^2/\omega_0^2 = 0.1$ shows that the near-field is essentially determined by the vacuum potential, equation (14), while the far-field decreases strongly with decreasing ion charge.

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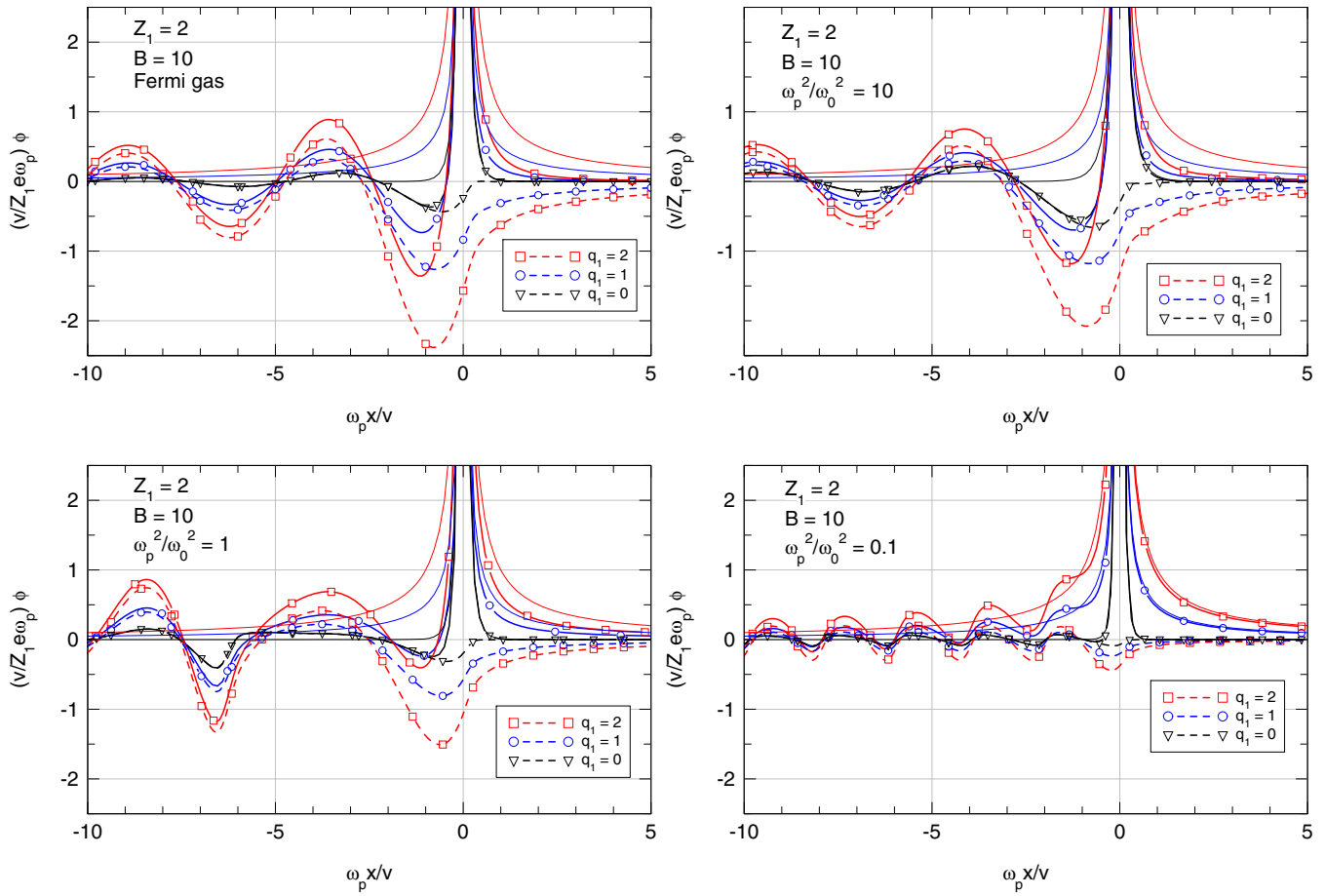

Fig. 7. (Color online) Charge-state dependence. Dashed lines: induced potential. Thick solid lines with symbols: total potential; thin solid lines without symbols: vacuum potential, equation (14). $B = 2mv^2/\hbar\omega_p = 10$; $Z_1 = 2$; $\hbar\omega_0 = 13.6$ eV. Fermi gas (top left) and oscillator model: $\omega_p^2/\omega_0^2 = 10$, 1 and 0.1.