

| Metall | Z_V | atomare Dichte $n (10^{28} m^{-3})$ | $-\frac{1}{R_H n e} \approx Z_V^{exp}$ | $\hbar\omega_p (eV)$ | $\hbar\omega_p^{exp} (eV)$ |
|--------|-------|----------------------------------------|----------------------------------------|----------------------|----------------------------|
| Li | 1 | 4,6 | 0,8 | 8,3 | 6,2 |
| Na | 1 | 2,5 | 1,0 | 6,2 | |
| K | 1 | 1,3 | 1,1 | 4,3 | 3,7 |
| Cu | 1 | 8,5 | 1,3 | 10,8 | |
| Au | 1 | 5,9 | 1,5 | 9,4 | |
| Mg | 2 | 4,3 | 1,6 | 10,9 | 10,6 |
| Be | 2 | 12,4 | -0,2 | 18,6 | |
| Al | 3 | 6,0 | 3,5 | 15,8 | 15,3 |
| Bi | 5 | 2,8 | $4,5 \cdot 10^{-4}$ | 13,9 | |

Tab. 4-1

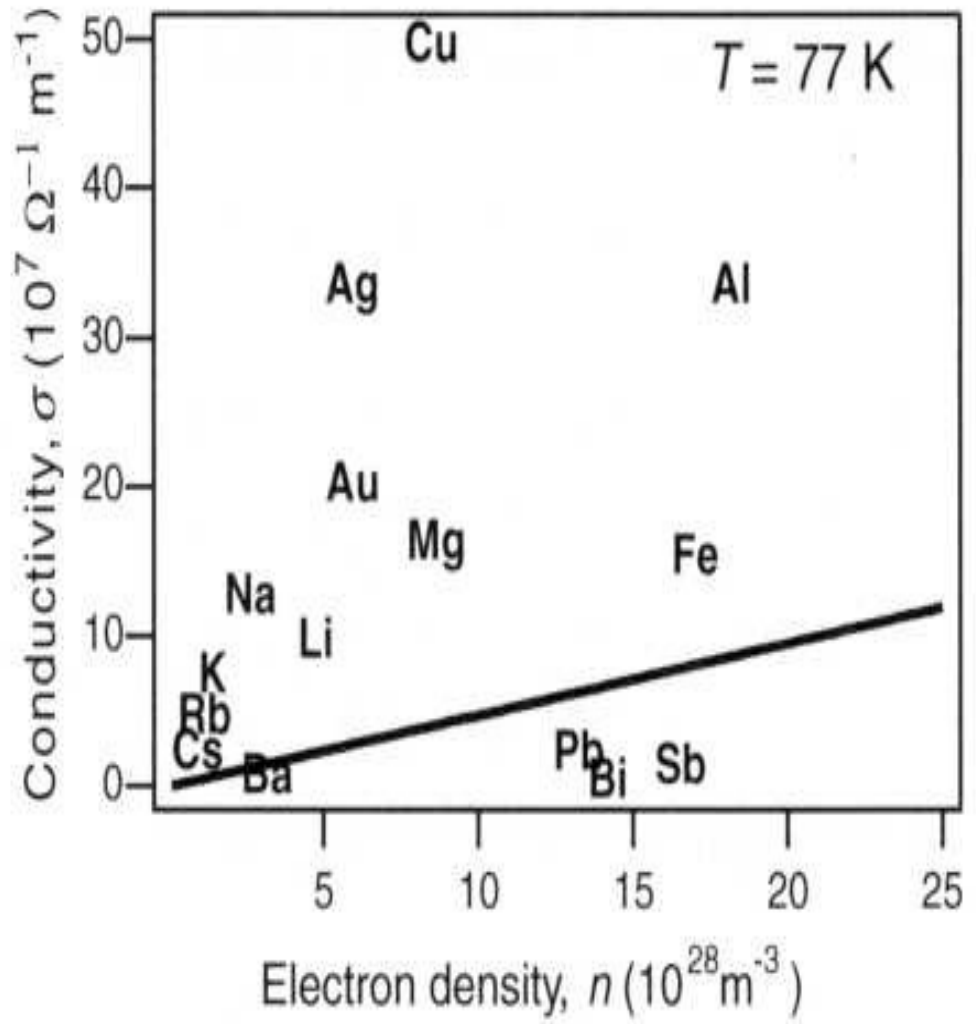
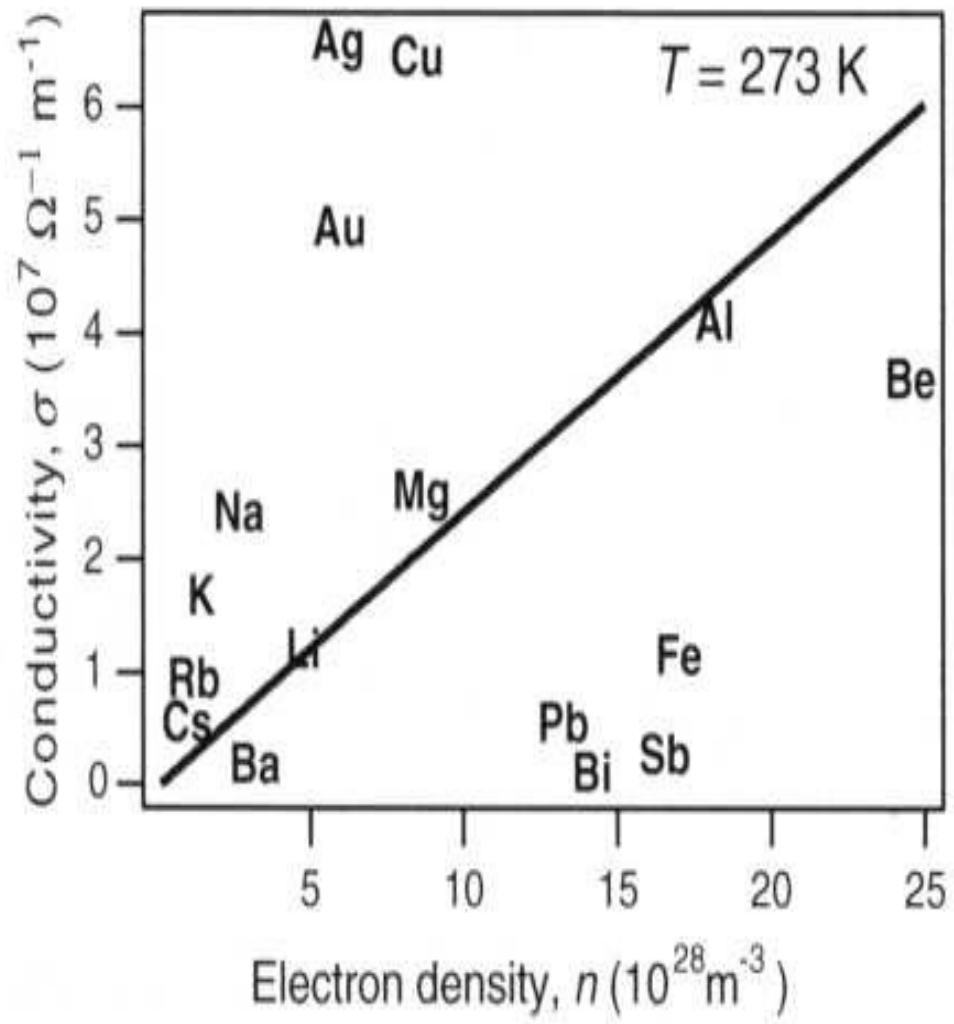


Fig. 4-1

Resistivitaet als Funktion der Temperatur fuer Na-Proben verschiedener Reinheit

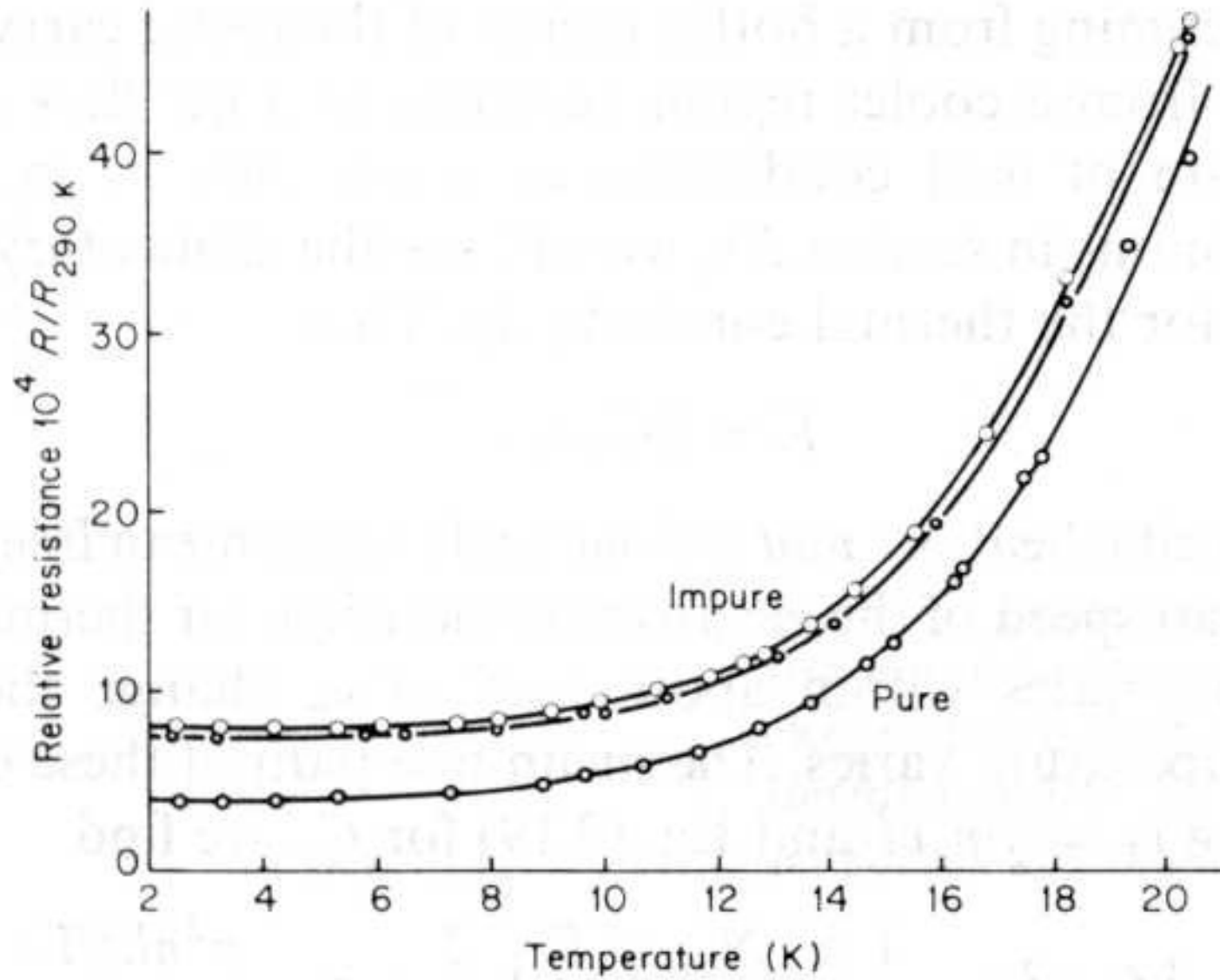


Fig. 4-2

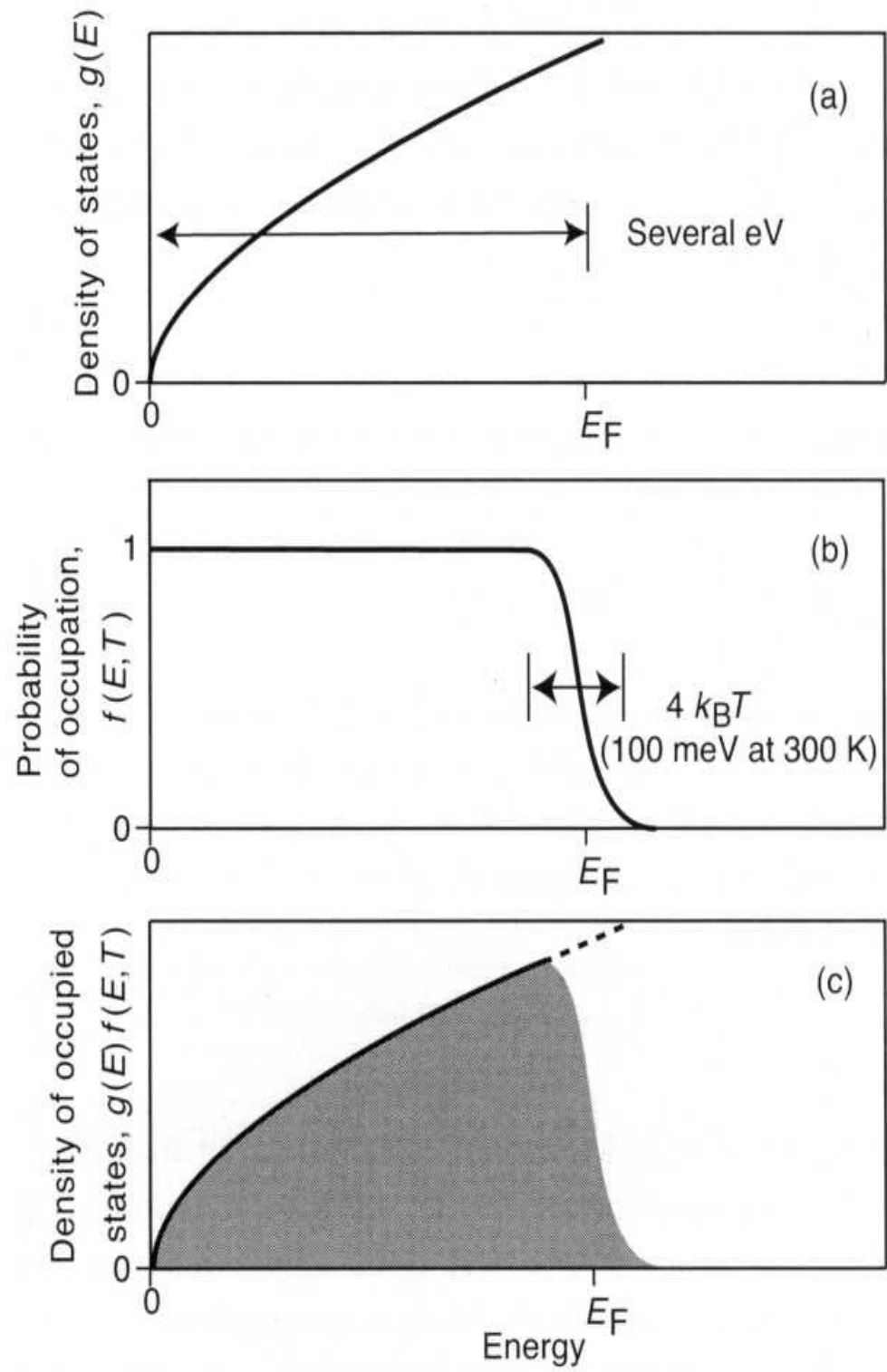


Fig. 4-3

| Metall | E_F (eV) | v_F ($10^6 \frac{m}{s}$) | T_F ($10^4 K$) |
|--------|------------|------------------------------|--------------------|
| Na | 3,3 | 1,1 | 3,6 |
| Ag | 5,5 | 1,4 | 6,4 |
| Cu | 7,0 | 1,6 | 8,2 |
| Al | 11,7 | 2,0 | 13,5 |

Tab. 4-2

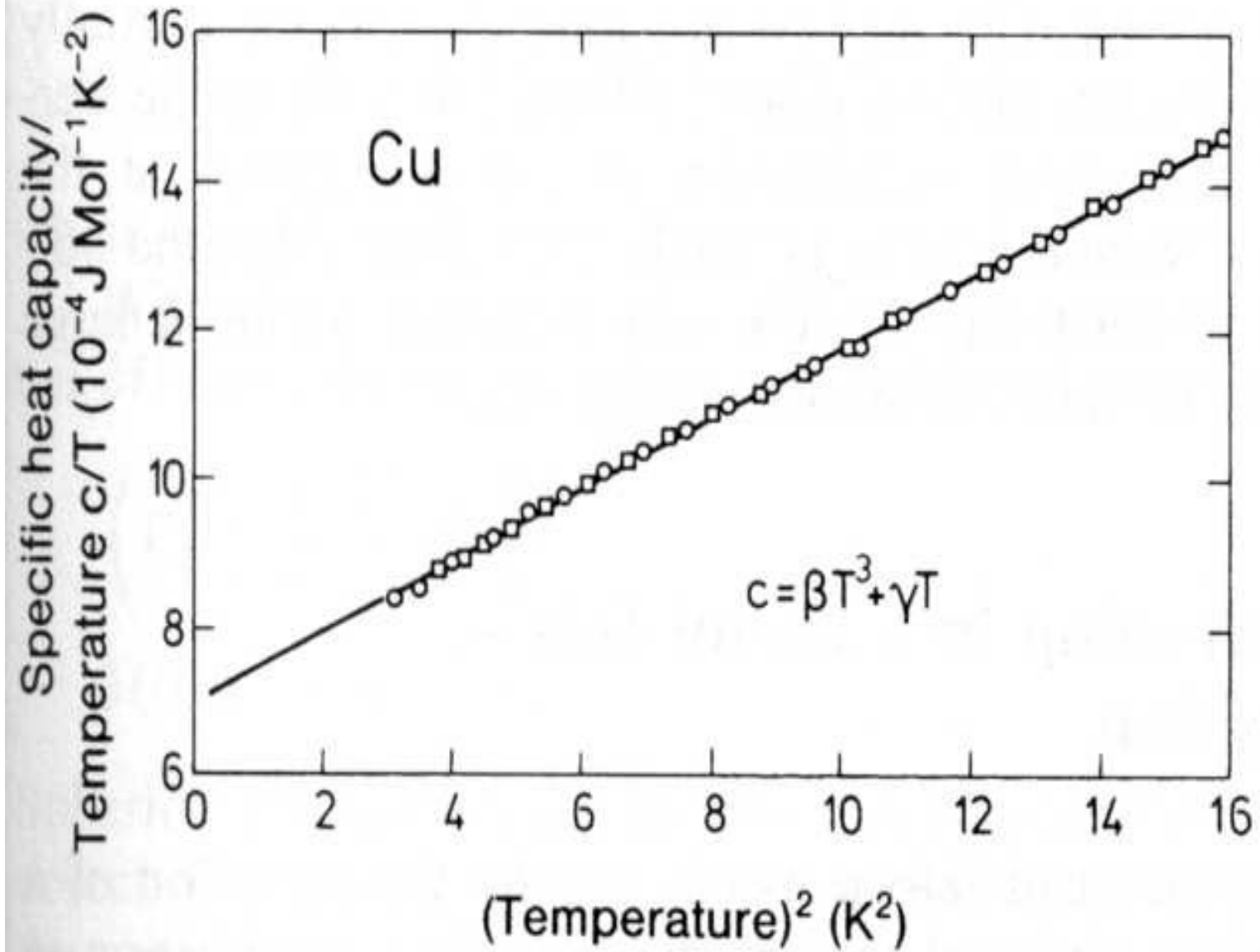


Fig. 4-4

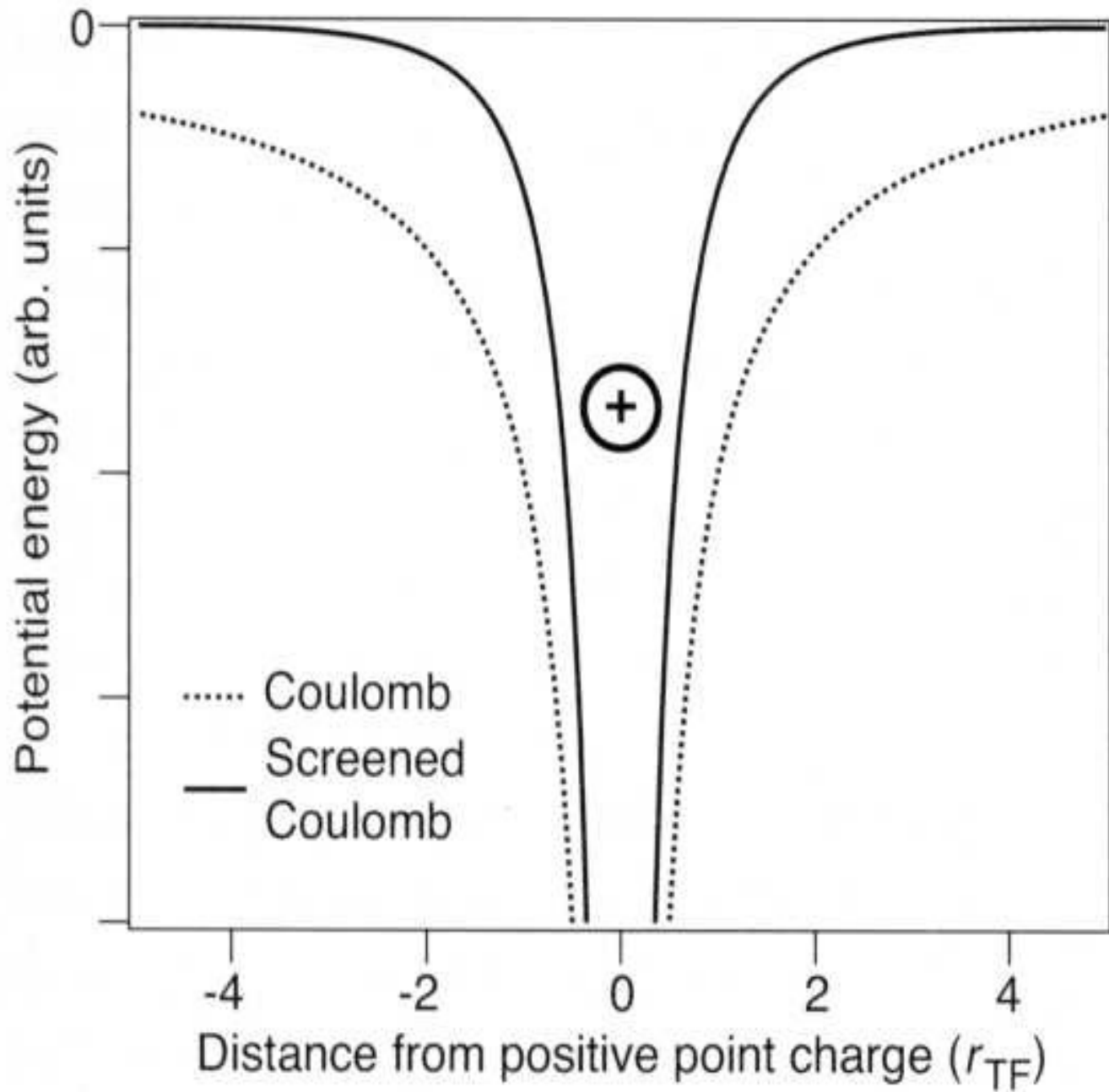


Fig. 4-5