FIGURE 2.1

Illustrations of elementary processes. (a) Ionizations. (b) Dissociative attachment and formation of a negative ion. (c) Complex ion formation.

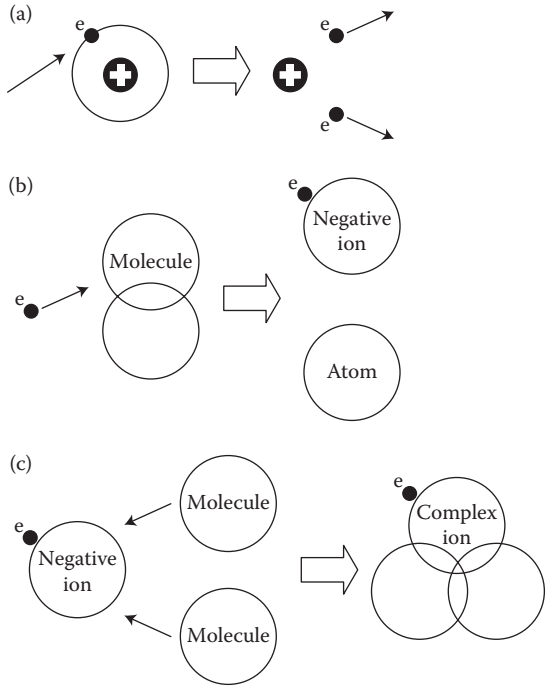

FIGURE 2.2

(a) Cross section of an elementary process. (b) Concept of the mean free path.

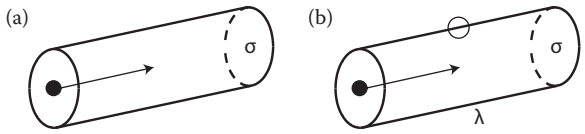

FIGURE 2.3

Illustrations of Coulomb collisions.

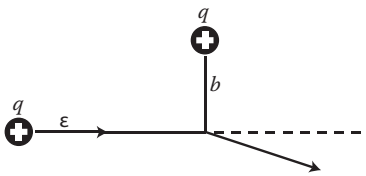

FIGURE 2.4

Ionization rate coefficient in molecular gases as a function of reduced electric field.

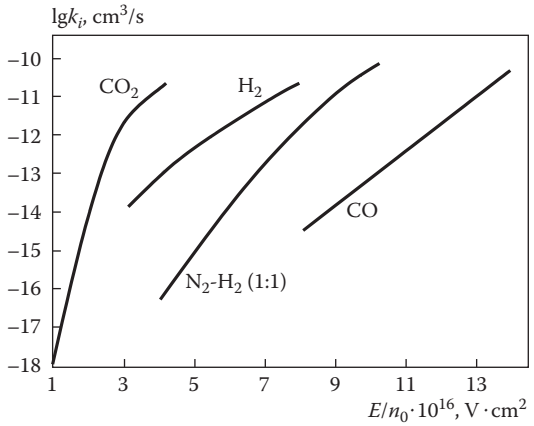

FIGURE 2.5

Molecular and ionic terms illustrating dissociative ionization.

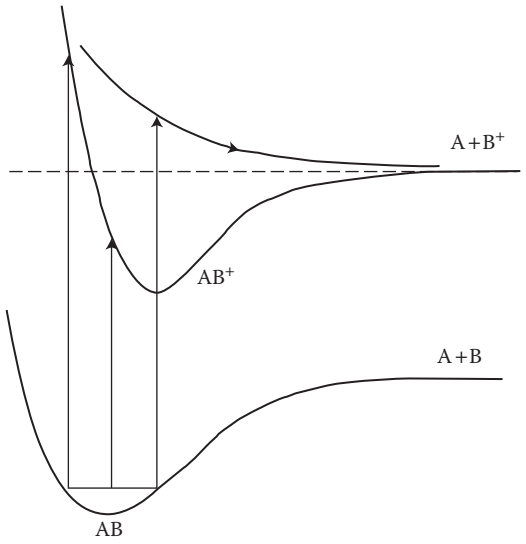

FIGURE 2.6

Dissociative attachment. (a) Low electron affinity. (b) High electron affinity.

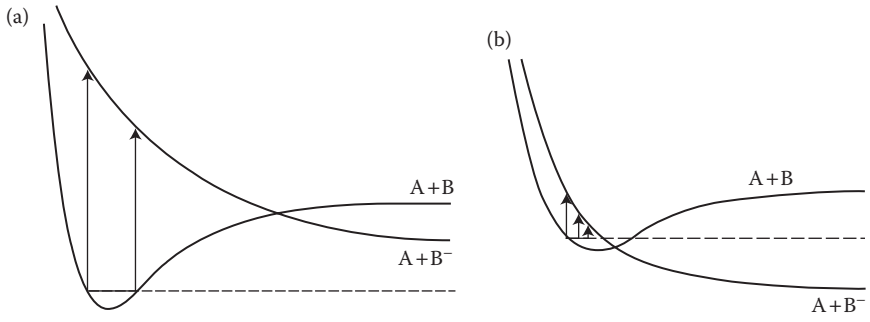

FIGURE 2.7

Cross sections of dissociative electron attachment to different molecules.

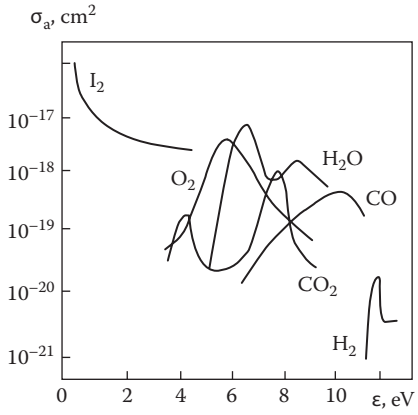

FIGURE 2.8

Rate coefficients of the three-body electron attachment to molecules.

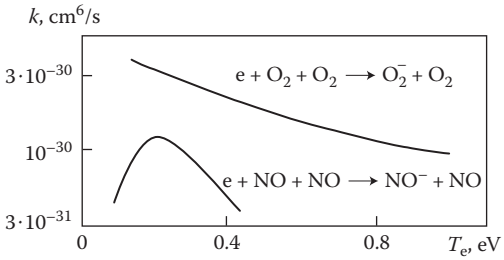

FIGURE 2.9

Negative ion destruction by electron impact.

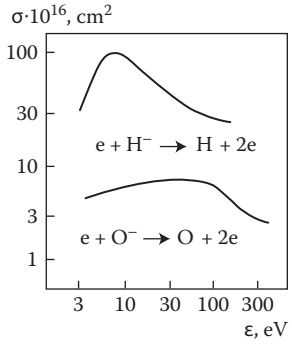

FIGURE 2.10

Terms illustrating the ion–ion recombination.

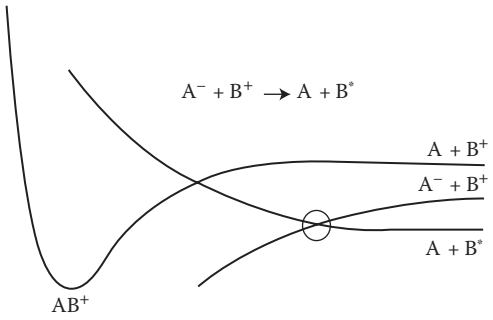

FIGURE 2.11

Ion–ion recombination rate coefficient in air.

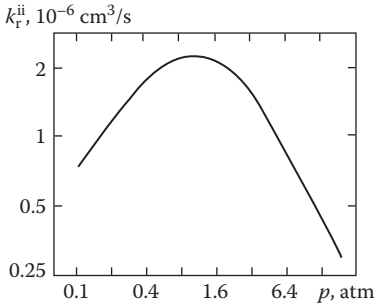

FIGURE 2.12

Langevin scattering in the polarization potential.

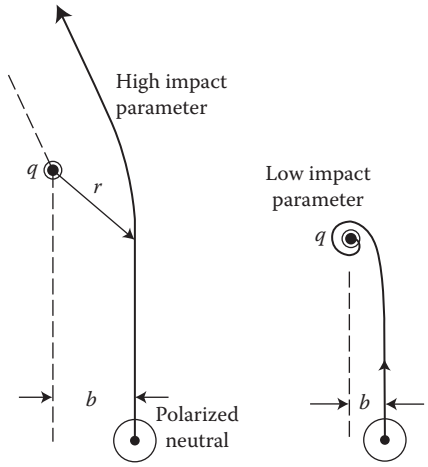

FIGURE 2.13

Energy terms for the resonant charge exchange.

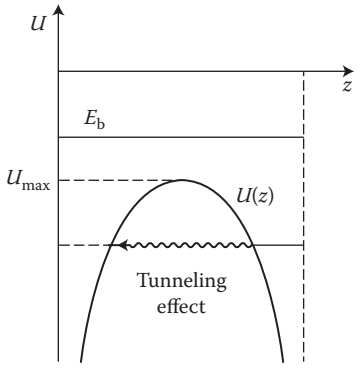

FIGURE 2.14

Terms illustrating the nonresonant charge exchange.

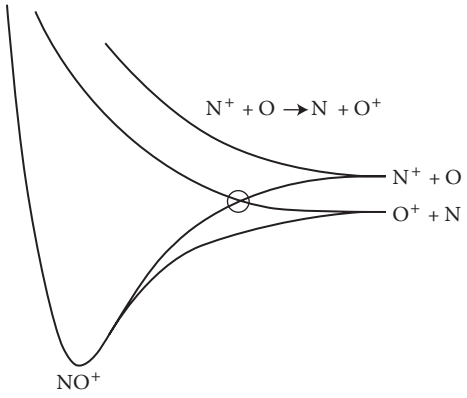

FIGURE 2.15
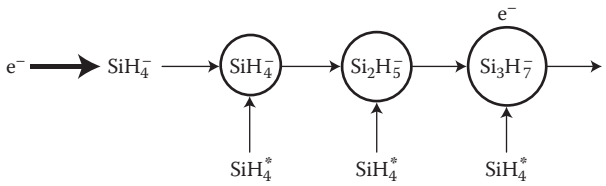
Illustration of ion–molecular reactions of cluster growth.