

Total Electron Scattering Cross Sections of He, Ne, Ar, Kr and Xe in the Energy Range 100 eV to 10 000 eV

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The total cross sections for electron scattering from He, Ne, Ar, Kr and Xe in the energy range from 100 eV to 10 000 eV have been calculated based on the optical-model potential. Our theoretical results are compared with the available experimental data. The consistency between them is also discussed. At higher energies (over 2000 eV for He, over 5000 eV for Ne, Ar, Kr and Xe), the total cross sections of electron scattering from these atoms are scarce, so our calculations will give a reference for further experimental and theoretical studies.

Key words: Electron Scattering; Total Cross Section; Optical-Model Potential.

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