

1) Theory and applications of atomic and ionic polarizabilities [20]

- The dielectric constant and the refractive index of any gas are examples of macroscopic properties that are largely determined by the dipole polarizability.
- The calculation of atomic polarizabilities is a demanding special case of the calculation of atomic structure.
- On this paper, only low-order polarizabilities are considered, high-order polarizabilities are not.
- The most widely used unit for theoretical atomic physics is atomic units (a.u.), in which, $q = m_e = 4\pi\epsilon_0 = \hbar = 1$.

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