

# COULOMB EFFECTS IN THE INTERACTION OF A CHARGED PARTICLE WITH A TWO-FRAGMENT QUANTUM SYSTEM<sup>1</sup>

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A direct method to derive the expression for the polarization potential between a charged particle and a two-fragment quantum system is developed. This method is based on the asymptotic properties of the two-body Coulomb Green function. The explicit form of the polarization potential constant is obtained for low-energy deuteron–nucleus scattering and for ion–hydrogen scattering. The properties of the polarization potential at high collision energies are applied to obtain an expression for the ion–atom scattering total cross section.

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