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## Quasicrossings of the energy terms in the two-Coulomb-centre problem

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The first three corrections to the bound state energy, separation constants, and wavefunctions of hydrogen-like ion in the field of remote ( $R \gg 1$ ) point charge are calculated by means of the modified perturbation theory. The consistent scheme for obtaining WKB expansions for solutions of the quasiaangular equation in quantum mechanical two-Coulomb-centre problem  $Z_1eZ_2$  is developed. In the framework of this scheme, the quasiclassical angular Coulomb spheroidal wavefunctions for large distances between the fixed positive charges (nuclei) are constructed for the below-barrier motion of the negative particle (electron). The quasiclassical expression for the exchange interaction  $\Delta E$  of potential curves at the points of their quasicrossing is found. It can be used further for the calculation of cross sections of charge exchange processes between hydrogen or hydrogen-like atoms and bare nuclei.

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