

COULOMB INTERACTION OF A PAIR
OF COHERENT ELECTRONS

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S u m m a r y

Properties of the coherent state of a pair of almost free electrons are studied. Conditions, under which Coulomb repulsion does not make a large influence upon properties of the system and the energy of interaction can be taken into account as perturbation only, are determined. Those conditions depend on the value of relative momentum of the particles and on the ratio of the distance between electrons and dispersion of the coordinate of a particle. Dependence of properties of the system on the total spin value is essential in the case where the distance between particles is comparable to an uncertainty of the coordinate, and the relative momentum \vec{p} to its dispersion.