

Radiative transitions and the mixing parameters of the D meson

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Spectroscopic parameters of heavy-light flavoured D meson are obtained within the framework of phenomenological quark-antiquark potential (Coulomb plus linear confinement) model using the Gaussian wave function. We incorporated $\mathcal{O}(1/m)$ to the potential energy term and relativistic corrections to the kinetic energy term of the hamiltonian. We obtain the radiative (electric and magnetic) transitions and the mixing parameters of the $D_q^0 - \bar{D}_q^0$ oscillation. The results are compared with various experimental measurement as well as other theoretical predictions.

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