

Abstract

The lifetime of one proton halo, Boron-8 has been enhanced by using an intense laser field. The halo proton has been made to stay in the ground state through direct interaction of the laser field with the halo nucleus. In this way, the breakup probability of proton halo has been reduced. Time-dependent variation of the system has been studied theoretically within the regime of perturbation theory. The variation in the breakup probability of proton halo with the change in laser frequency and field has been studied.