

## Dynamic Behavior of Lambda-Type Three-Level Atoms and Two-Mode Cavity Field

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**Abstract:** A system comprising of Lambda-type three-level atoms and the two-mode cavity field is considered in this paper. Under the adiabatical approximation and the large detuning condition, the effective Hamiltonian of the system in the interaction picture can be given out. If the two identical three-level atoms pass through the cavity in turn, the entangled state atoms can be generated. When the interaction time is taken to an appropriate value, the maximally entangled states are created. At the same time, the dynamic behaviors of the system are studied in detail.

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