

Entanglement of Two Atoms Induced by a Fock State of Radiation Field

CAI Jin-Fang, WANG Xiu-Wu, and ZOU Jian

Department of Physics, Beijing Institute of Technology, Beijing 100081, China
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Abstract: Considering the intrinsic decoherence proposed by Milburn, we investigate the entanglement between two two-level atoms induced by a Fock state of single-mode quantized radiation field. The time-dependent reduced density matrix of the atoms system is given explicitly. Due to the intrinsic decoherence, the atoms system will approach a stationary state, where the stationary entanglement depends on the initial states of the field and the atoms.

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Key words: entanglement, intrinsic decoherence, Fock state

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