

Formation of Stimulated Photon Echo in Three-Level Systems and Recovery of Phase Memory by External Spatially Inhomogeneous Electric Fields

Nefediev L., Nizamova E.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2014, Springer Science+Business Media New York. The formation of stimulated photon echo is studied in three-level systems in the presence of external inhomogeneous electric fields. The ratio of the gradients of external spatially inhomogeneous electric fields required to recover the phase memory of the system is calculated. This ratio is found to correlate with the nonequidistance parameter of the spectrum of the system.

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Keywords

external spatially inhomogeneous electric field, nonequidistance parameter of system spectrum, stimulated photon echo, three-level system