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Correlated stimulated photon echo signals under three-photon femtosecond excitation of CdSe-CdS colloidal quantum dots

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Abstract

© 2016 Astro Ltd. The possibility and conditions of the correlated signals of stimulated photon echo (SPE) generation under three-photon femtosecond excitation of a sample, which is an ensemble of N semiconductor nanoparticles, are investigated. Each of these nanoparticles consists of a CdSe core covered by a CdS shell. The phase matching conditions for correlated SPE signal formation in such a sample are obtained.

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Keywords

correlated signals, quantum dots, stimulated photon echo