

Nonlinear Optical Properties for Three Level Atoms at Resonance and Off-Resonance with Laser Coupled Beams

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Abstract : For three level atom interacts with a laser beam, the effect of changing resonance and off-resonance frequencies has been studied. Furthermore, a clear distortion has been seen in both the real and imaginary parts of the electric susceptibility with increasing the frequency of the coupled laser beams so that reaching the off-resonance interaction. With increasing the Rabi frequency of the laser pulse that in resonance with the lower transition the distortion will produce a new peak in the electric susceptibility parts, in both the real and imaginary ones.

Keywords : electric susceptibility, resonance frequency off-resonance frequency, three level atom, laser

Conference Title : ICAST 2017 : International Conference on Advances in Sciences and Technology

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : December 11-12, 2017