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Title:Study of THz-wave-induced photoluminescence quenching in GaAs and CdTe
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Abstract:A novel model of ultrafast interaction between THz pulse and carriers is built to study the THz-waveinduced quenching of femtosecond-laser-excited photoluminescence in CdTe and GaAs. Photoluminescence quenching is due to the nonequilibrium intervalley phonons induced by the THz field and subsequent decrease of the recombination efficiency of the electron-hole pairs. And the PLQ versus laser intensity experimental result agrees with the analysis. © Springer-Verlag 2012.
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