149. Title: Dephasing Effect on the Carrier-light Interaction in Terahertz Quantum Cascade Lasers
Author: Wang, F; Guo, XG; Cao, JC
Source: JOURNAL OF THE KOREAN PHYSICAL SOCIETY
Volume:58
Issue:4
Pages: 924-926
Publication year: 2011
Document type:Journal article (JA)
Abstract: We study the dephasing effect on the carrier-light interaction in terahertz quantum cascade lasers by using a rate-equation method including the optical field. The time evolution of the gain coefficient and the stimulated radiation rate are shown. We theoretically provide an ultrafast microscopic process for the conversion of a working terahertz quantum cascade laser from an unsaturated to a saturated state.