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标题: Spectral Research on an AlGaAs Epitaxial Material for a Terahertz Quantum-cascade Laser
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摘要: The spectral properties of a series of AlGaAs epitaxial films were studied by using a Fourier transform infrared spectrometer with an 80-degree grazing incidence reflection unit. The AlAs-like transversal optical phonon was obviously observed in the spectra, but the longitudinal optical phonon was obscured in the transmission spectra. The variation curves for the transversal optical phonon energy were acquired from the two kinds of spectra and were compared with each other and with the early results. A comparison of the results show that the grazing incidence reflection spectrum is better in reflecting the AlAs-like phonon energy of an AlGaAs epitaxial film and could be a supplementary means in the characterization of the material for a terahertz quantum-cascade laser.
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