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摘要: Recent studies on the techniques and development of photoconductive (PC) semiconductor devices for efficient generation and detection of terahertz (THz) pulsed radiation are reported. Firstly, the optimization of PC antenna design is discussed. The PC detection of THz pulsed radiation using low-temperature grown GaAs with 1.55-mu m wavelength probe is then described. Finally, the enhancement of THz radiation from InSb by using a coupling lens and magnetic field is investigated. These results reveal valuable insights on the design of an efficient, compact, and cost-effective THz time-domain spectroscopy system based on 1.55-mu m fs laser sources.
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