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Title

Excitation wavelength dependences of terahertz emission from surfaces of InSb and InAs

Source

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Abstract

The terahertz (THz) power radiated by the femtosecond laser excited semiconductor surfaces was measured by the Golay cell. Intrinsic InSb crystals as well as n- and p-type InAs were investigated by using three different wavelength, 780, 1030, 1550 nm, femtosecond lasers. It has been shown that p-type InAs crystal is the most efficient THz emitter for all three laser wavelengths with a nearly constant optical-to-THz power conversion efficiency of approximately 10⁻⁶. (8 References).