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标题: Optically- and Electrically-Stimulated Terahertz Radiation Emission from Indium Nitride

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摘要: Indium nitride is a novel narrow band gap semiconductor. The material is a potential strong source of terahertz frequency electromagnetic radiation with applications in time-domain terahertz spectroscopy and imaging systems. This article reviews recent experimental research on terahertz emission from the binary compound semiconductor indium nitride excited by near-infrared laser beams or microseconds electrical pulses. Advantages of indium nitride as terahertz radiation source material are discussed. It is demonstrated that different mechanisms contribute to the emission of terahertz radiation from indium nitride. The emission of up to 2.4 mW of THz radiation power is observed when InN is excited with near-infrared femtosecond laser pulses at an average power of 1 W.

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