

262. Title: Contactless photoconductive terahertz generation

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Abstract: We describe a pulsed terahertz (THz) emitter that uses a rapidly oscillating, high-voltage bias across electrodes insulated from a photoconductor. Because no carriers are injected from the electrodes, trap-enhanced electric fields do not form. The resulting uniform field allows excitation with a large laser spot, lowering the carrier density for a given pulse energy and increasing the efficiency of THz generation. Compared to a dc bias, less susceptibility to damage is observed.