301. Title:Toward high-power terahertz emitters using large aperture ZnSe photoconductive antennas
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Abstract:We investigate the generation of free-space terahertz (THz) radiation from photoconductive antennas using single crystal and polycrystalline ZnSe substrates. The

photoconductive antennas using single crystal and polycrystalline ZnSe substrates. The photoconductive antennas have been excited above (400 nm) and below (800 nm) the bandgap. We investigate the dependence of the THz electric field radiated from biased ZnSe emitters on the applied bias field and on the incident optical fluence for bias fields as high as 26 kV/cm and for optical fluences of 0.0053 mJ -2. The saturation fluence is observed to be significantly different both above and below bandgap excitation. These results show that, in comparison with GaAs substrates, ZnSe has strong potential as a high-power THz emitter.