Abstract Submitted
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THz GaAs photonic crystals[1] NATHAN JUKAM, MARK S. SHERWIN, Department of Physics, University of California, Santa Barbara — THz GaAs photonic crystals were fabricated by reactive ion etching. The $\langle 100 \rangle$ semi-insulating GaAs had an n-doped epi-layer that was used to generate THz radiation from coherent plasma oscillations initiated by femtosecond laser excitation. The emitted THz radiation was detected by electro-optic detection with a ZnTe crystal. When the laser beam was brought to a line focus at normal incidence, emitted THz radiation was observed whose spectrum consisted of sharp peaks. These peaks are attributed to guided slab modes being diffracted at the Γ points of the photonic crystals.

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