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Title:Phase-locking of a 2.5 THz quantum cascade laser to a frequency comb using a GaAs photomixer
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Abstract:We report the heterodyne detection and phase locking of a 2:5 THz quantum cascade laser (QCL) using a terahertz frequency comb generated in a GaAs photomixer using a femtosecond fiber laser. With 10mW emitted by the QCL, the phase-locked signal at the intermediate frequency yields 80 dB of signal-to-noise ratio in a bandwidth of 1 Hz.
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