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Abstract:Generation of continuous wave radiation at terahertz (THz) frequencies from a heterodyne source based on quantum-dot (QD) semiconductor materials is reported. The source comprises an active region characterised by multiple alternating photoconductive and QD carrier trapping layers and is pumped by two infrared optical signals with slightly offset wavelengths, allowing photoconductive device switching at the signals' difference frequency ∼1 THz. © 2012 American Institute of Physics.
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