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Title:Investigation of terahertz generation from passively Q-switched dual-frequency laser pulses
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Abstract:When two Nd:YLF crystals share a Cr:YAG crystal functioning as a single passive Q switch, the timing jitter between each pair of dual-frequency pulses generated by the two crystals has been reduced by a factor of 20. Such a reduction in the timing jitter allows us to generate terahertz pulses by focusing such a passively Q-switched laser beam onto a nonlinear crystal. Such a result represents the first step for us to eventually implement a compact terahertz source based on ultracompact microchip lasers.
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