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Title:Tunable Terahertz Beat Signal Generation From an InAs/InP Quantum-Dot Mode-Locked Laser Combined With External-Cavity

Authors:Jiao, Z.J. (1); Liu, J.R. (2); Lu, Z.G. (2); Zhang, X.P. (2); Poole, P.J. (2); Barrios, P.J. (2); Poitras, D. (2); Caballero, J. (2)

Author affiliation: (1) Concordia Univ, Dept Elect & Comp Engn, Adv Photon Syst Lab, Montreal, PQ H3G 1M8, Canada; (2) CNR, Inst Microstrutural Sci, Ottawa, ON K1A 0R6, Canada

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Abstract:Tunable terahertz beat signal generation is demonstrated by using a C-band InAs/InP quantum-dot (QD) mode-locked laser combined with external cavity of two fiber Bragg gratings (FBGs), where one of the FBGs is tunable in wavelength. Beat signals with ultra-high repetition rates quasi-continuously from 1 to 2.21 THz are observed between the two modes, which are phase-correlated due to intracavity four-wave mixing effect in the QD waveguide.

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