

Rapid THz-TDS Enabled by Single-Cavity Dual-Comb Gigahertz Laser

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We present a single-mode pumped SESAM-modelocked single-cavity GHz dual-comb laser with widely tunable repetition rate difference. This low noise free-running solid-state laser is applied for THz-TDS using photoconductive antennas. We show nanosecond scans with 36 kHz update rate, yielding a 40-dB dynamic range for an integration time of 2 seconds.

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