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Title:Terahertz optical asymmetric demultiplexer (TOAD) based half-adder and using it to design all-optical flip-flop
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Abstract:All-optical half-adder using Terahertz optical asymmetric demultiplexer (TOAD) switch is proposed and described in this manuscript. Here incoming and control signals are of same wavelength and their state of polarization is orthogonal to each other. Numerical simulation is also presented, which verifies the theoretical results. Also all-optical flip-flops (clocked S-R and J-K) with this help of half-adder unit are proposed in this literature. This work is actually the extension of my previous published paper (Chattopadhyay, 2011 [1]), where XOR gate using TOAD based switch was proposed. © 2011 Elsevier GmbH.
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