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Title:THz light pulse generated and storage by using a Gaussian pulse within a waveguide system Authors:Udomariyasap, P. (1); Noppanakeepong, S. (1); Mitatha, S. (2); Yupapin, P.P. (3)

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Abstract:We propose the interesting results of high frequency generation method, which is required to use in the THz regime. A generated system consists of two micro and a nano rings that can be integrated into a signal system which can be employed to generate the large bandwidth by a Gaussian pulse propagating within the ring resonator system. The selected signals can be stored and filtered by using the optical storage unit and an add/drop filter, respectively. By controlling the ring parameters, the appropriate output power can be obtained, which can be modified to be suitable in either imaging or communication applications. Moreover, the very wide band of wavelength can be generated and controlled for various applications.

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