OPTICAL VORTICES GENERATED BY LIGHT PULSES WITHIN A PANDA RING RESONATOR

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Abstract: This paper proposes a new ring resonator device, in which a modified add/drop multiplexer incorporated with two nanoring resonators is modeled. Such a system is known as the PANDA ring resonator structure. By controlling the suitable input parameters and the control optical signals, the optical pulses are employed to form the gradient potentials, finally, the optical vortices (gradient optical fields/wells) are generated, which can be deployed in various applications.

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