OPTIMIZATION OF ENERGETIC PARAMETERS OF LASER IN THE CASE OF PASSIVE *Q*-SWITCH OF A RESONATOR

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S u m m a r y

Within the framework of the space coordinate averaging of differential equations, relations were obtained both in parametric and practically useful analytic forms. These relations establish a unambiguous connection between unital absorption of a passive switch and values of useful losses on the output mirror of a rezonator. These losses provide the maximal value of energy, peak power, and the minimal duration of a gigantic radiation pulse, respectively. In this case, the pulse structure and related effects of synchronization of modes are excluded from the consideration by the initial equations, the consequences of which are analyzed in this paper.