

HOPF BIFURCATION IN A SOLID-STATE
SINGLE-MODE LASER WITH A CONTROLLED
 Q -FACTOR OF THE RESONATOR

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S u m m a r y

A criterion of stability for oscillations of the Hopf-bifurcation origin, an interval of stability for the pumping parameter A , a periodic solution in the quadratic approximation, an analytic form of the limit cycle in a first approximation, and the intervals of variations of the control parameters have been obtained for the classical model of dynamics of a solid-state single-mode laser with a Q -switch of the universal cusp-deformation type.