Abstracts

Superhigh Differential Quantum Efficiency and Strong Self-Sustained Pulsation in CW DH Laser Diodes

C.-M. Wang, L.-Q. Zhao, W.-R. Zhuang, J.-M. Chang, C.-S. Chang and Z.-Q. Wu. "Superhigh Differential Quantum Efficiency and Strong Self-Sustained Pulsation in CW DH Laser Diodes." 1982 Transactions on Microwave Theory and Techniques 30.4 (Apr. 1982 [T-MTT] (Joint Special Issue on Optical Guided Wave Technology)): 441-447.

Some experimental results in GaAs DH lasers having a stable, long operating-time, such as nonlinear superhigh differential quantum efficiency, the behavior of light output saturation and sudden growth again in the same filament, strong self-sustained pulsation, and so on, are presented. A model of double filaments caused by the non-uniform distribution of aluminum in the active layer of the laser diode is present to explain their anomalous behavior qualitatively.

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