LINEAR CAVITY ERBIUM DOPED FIBER LASER

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ABSTRACT

The performance of laser efficiency in linear cavity erbium doped fiber (EDF) laser have been investigated. Four (4) meter of EDF which is pumped by a 980nm laser diode is used as the gain medium in the building of fiber laser using linear cavity configuration. Two configurations were built with different position of optical components. The efficiencies obtained were 5.11% and 4.17% for configuration 1 and 2 respectively. The output power was measured and the result for configuration 1 was 0.0088mW while configuration 2 was 0.0086mW output power at threshold point. Characterize of optical components have been measured in order to set up the configurations of several EDFL.

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