

Effect of output coupling ratio on the performance of ring-cavity Brillouin fiber laser

ABSTRACT

We present a single-wavelength Brillouin fiber laser utilizing a ring-cavity configuration. Performances and characteristics of the laser system have been investigated at different output coupling ratios. The optimum output power of the system stood at 7.3 mW, which was obtained at 90% output coupling ratio. A low Brillouin threshold power of 0.9 mW was obtained at 10% output coupling ratio when the Brillouin pump was set at its maximum power of 24 mW.