

MULTIPLE WAVELENGTH SIGNAL GENERATION FROM A BRILLOUIN ERBIUM FIBER LASER INTERNALLY PUMPED FROM FBG FIBER LASER

M. Kamil Abd-Rahman

*Faculty of Applied Science,
Universiti Teknologi Mara,
40450 Shah Alam, Selangor, Malaysia.*

Email: drkamil@salam.uitm.edu.my

ABSTRACT

A dual-ring Brillouin erbium fiber laser (BEFL) system sharing the same erbium doped fiber (EDF) had been demonstrated to output a single wavelength Stokes signal [1]. The system had been used to form a cascaded configuration for multiwavelength generation. The dual-cavity ring laser system demonstrated a multiwavelength output of 16 Stokes signals spaced at 0.088 nm. The Brillouin erbium fiber laser was in one cavity and a fiber Bragg grating (FBG) fiber laser in the other, which acted as a Brillouin pump for the BEFL. No external Brillouin pump was used in the experiment.

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