

## Characterization of Raman gain for different gain medium

### ABSTRACT

By using different fiber types as gain medium such as 500 m HNLF, 215 cm Bi-EDF, 7.2 km DCF, 11 km DCF, 18.2 km DCF, as well as the composition of Bi-EDF with 11 km DCF and finally the composition of Bi-EDF with the 18.2 km DCF, Raman gain was characterized and measured by the same set up as proposed in our study. The results revealed that the composition of Bi-EDF with the 18.2 km DCF provided the highest effective Raman gain among the other fibers investigated.

**Keyword:** Raman spectra; Bismuth; Erbium; Nonlinear optics; Optical fibre dispersion