

## Supplementary material for Birefringent Anti-resonant Hollow-core Fiber

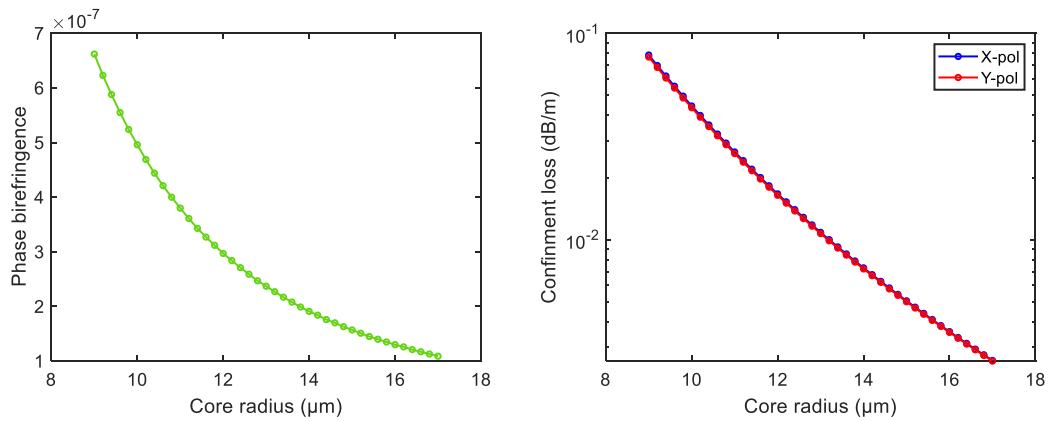


Figure 1: Calculated phase birefringence and confinement loss (for x and y polarisation) at 800 nm as a function of the core size of a fibre based on design B. For all core sizes, the capillary tube thicknesses are fixed at  $t_1 = 610$  nm and  $t_2 = 210$  nm, and the ratio between core and capillary tube diameters is set such that it is the same as in design B.

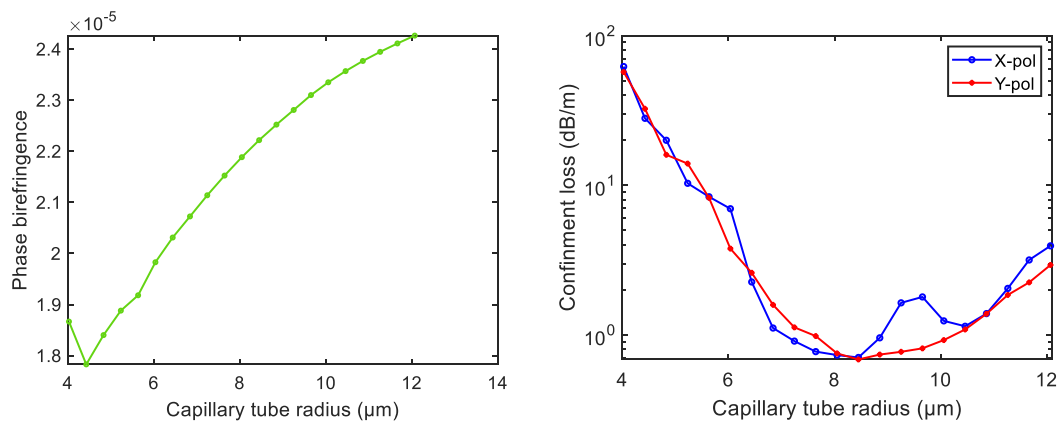


Figure 2: Calculated phase birefringence and confinement loss (for x and y polarisation) at 1550 nm as a function of the tube size of a fibre based on design B. For all tube sizes, the capillary tube thicknesses are fixed at  $t_1 = 610$  nm and  $t_2 = 210$  nm, and the core size is the same as in design B.

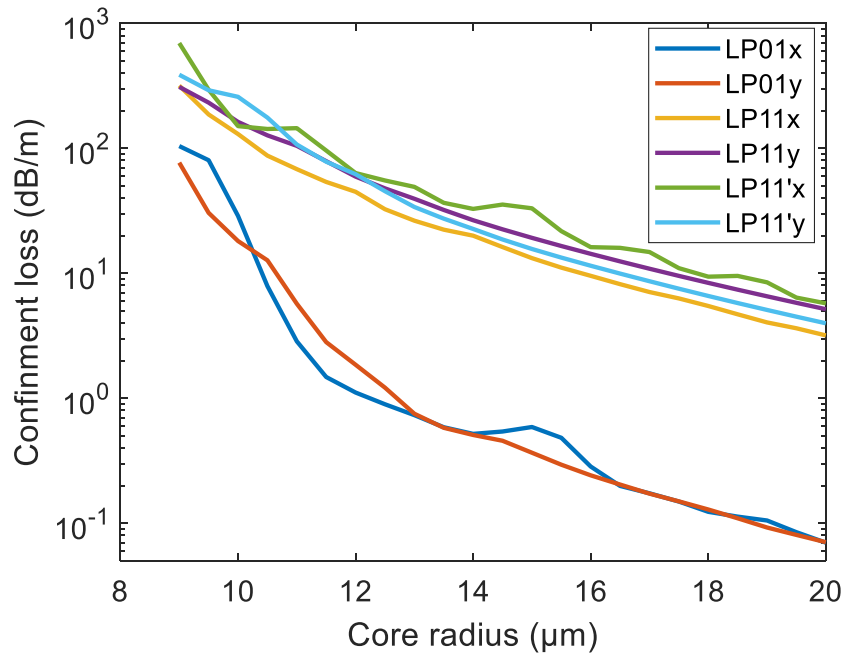


Figure 3: Confinement loss as a function of core size for the fundamental mode as well as the higher order modes at 1550 nm of a fibre based on design B.

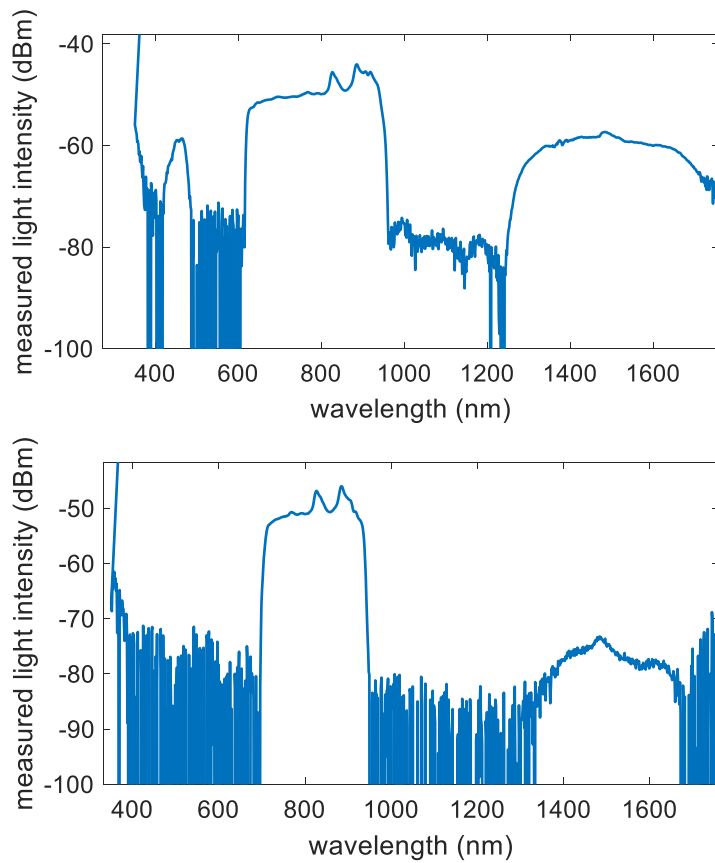


Figure 4: Transmission as a function of wavelength for a 10 m (top) and a 50 m piece (bottom) of the fibre.

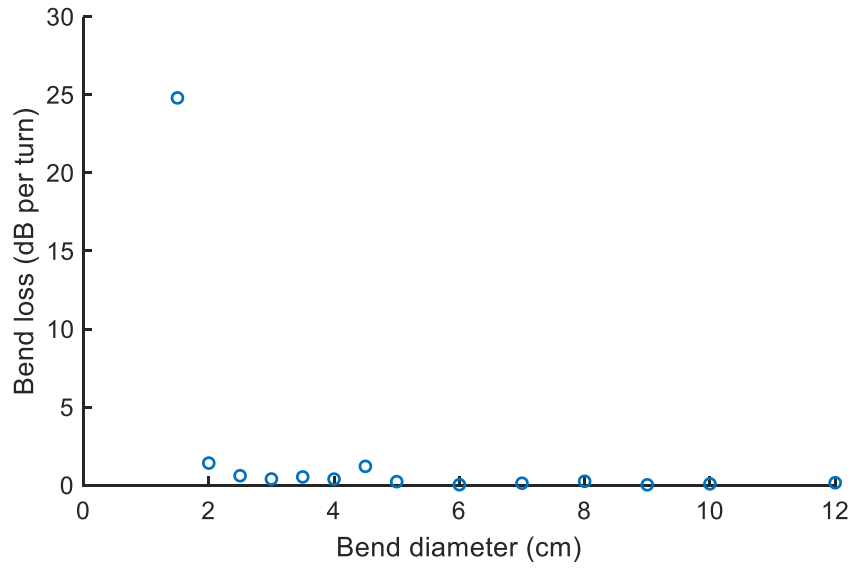


Figure 5: Measured bend loss (dB per turn) for different bend diameters at 1550 nm.

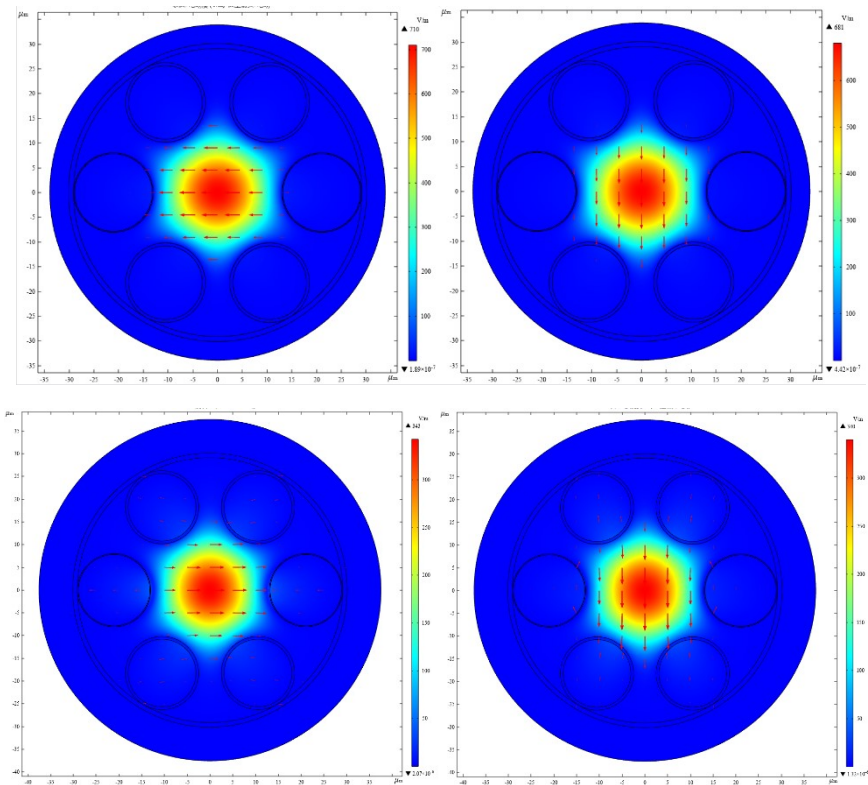


Figure 6: Field distributions for the x and y polarisation modes at 800 nm (top) and 1550 nm (bottom) of a simulated fibre based on design B.