

## **INDEX-GUIDED PHOTONIC CRYSTAL FIBERS: STUDY OF FIBER DRAWING PARAMETERS**

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*We report the effect of drawing parameters in fabricating Microstructured Optical Fiber (MOF) or Photonic Crystal Fiber (PCF). PCFs have been fabricated by 'stack and draw' technique, both in double and single stage and hole diameter of 3-13 $\mu$ m have been obtained. The salient parameters of PCF drawing, like the furnace temperature, preform feed rate, fiber draw speed and the differential pressure within the preform stack, are precisely studied and optimized to obtain the desired microstructure of the fiber. Furnace temperature and differential pressure play a critical role in controlling the shape and size of holes of the ultimate fiber. The spectral attenuation curve of a double-stage drawn PCF is obtained using a special measurement technique.*