

Low-loss terahertz (THz) wave guiding based on hollow core-photonic crystal fiber is demonstrated. The fiber proposed adapted for high THz frequency transmission, reached 3THz frequency. The fiber is designed for low transmission, confinement and material losses. Finite element method was used to analysis the transmission of fiber. The air holes of the fiber beside the two cores inside the middle of the fiber were supported for efficient confinement. The presented fiber has many applications for range THz radiation.